DOCUMENT RESUME

ED 440 023	SO 031 635
TITLE	Encountering Maryland's Past. Volume 1: Science, Technology, and Invention in History. A Primary Source Kit from the Maryland Historical Society.
INSTITUTION	Maryland Historical Society, Baltimore.
PUB DATE	1999-00-00
NOTE	176p.; Source Kit also funded by Columbia Gas of Maryland, Maryland's History Day Program, and the Rouse Company Foundation. For volume 2, and the teacher guide, see SO 031 636-637. Some pages may not reproduce clearly.
AVAILABLE FROM	Maryland Historical Society, 201 West Monument Street, Baltimore, MD 21201-4674. Tel: 410-685-3750; Web site: http://www.mdhs.org.
PUB TYPE	Guides - Classroom - Learner (051)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Elementary Secondary Education; *Inventions; Local History; *Primary Sources; *Sciences; Social Studies; *State History; Student Research; *Technology
IDENTIFIERS	*Maryland; Maryland Historical Society; National History Day

ABSTRACT

This primary source kit supports the study of history in the elementary, middle, and high school levels. Each primary source selected for the kit, whether it be a photograph, a broadside, a map, or a private letter, reflects a meaningful part of the state of Maryland and U.S. history. The kit provides educators with an opportunity to use primary documents from Maryland's history with activities that support performance instruction, and can be used to teach economics, political science, civics, geography, and other components of social studies. The kit is divided into the following sections: (1) "An Introduction to the Primary Source Kit"; (2) "Key to the Primary Source Icons"; and (3) "Primary Sources and Context Pages. The kit may be used to introduce new topics in the curriculum; to facilitate discussion in the classroom; capture students' interest by looking at issues through a "local lens"; to involve students in cooperative learning teams; to develop and refine students' analytical and problem-solving skills; to encourage students to carry out historical research; and to initiate National History Day projects. (BT)

ENTIRE DOCUMENT:
POOR PRINT QUALITY

Reproductions supplied by EDRS are the best that can be made
from the original document.

S

ED 440 023

Encountering Maryland's Past

Volume 1: Science, Technology, and Invention in History

A Primary Source Kit from the
Maryland Historical Society

SO 031 635

Columbia Gas of Maryland

Maryland Historical Society

Maryland's History Day Program

Rouse Company Foundation

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL IN MICROFICHE
AND IN ELECTRONIC MEDIA FOR ERIC
COLLECTION SUBSCRIBERS ONLY
HAS BEEN GRANTED BY

Robert E. Cottom

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

2A

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

ENCOUNTERING MARYLAND'S PAST
A Primary Source Kit from the Maryland Historical Society

PROJECT TEAM
Rachel Brubaker, Maryland's History Day Program
Bruce A. Lesh, Catonsville High School
Kathryn Robinson, Parkville High School
Janet H. Surrett, Project Director, Maryland Historical Society

MARYLAND HISTORICAL SOCIETY
Education Department
Suzanne Rosenblum Guardia, Director of Education
Kim Kelley, Youth and Family Programs Assistant
Kit Tubman, Education Assistant, MHS
Library Division
David de Lorenzo, Associate Director, Library
Mary Herbert, Assistant Curator of Manuscripts
Mary Markey, Assistant Curator of Prints and Photographs
Francis O'Neill, Reference Librarian
Publications Division
David Prencipe, Photo Services
Interns
Glenn Dellon, Graphic Designer
Donovan Stone, Research Assistant
Jennifer Ziegler, Graphic Designer

SPONSORS
Columbia Gas of Maryland
Maryland Historical Society
Maryland's History Day Program
Rouse Company Foundation

Cover photograph: Lamp department, Baltimore Gas and Electric appliance store, c. late 1920s. BGE 4153. Prints and Photographs Department, Maryland Historical Society Library

TABLE OF CONTENTS

AN INTRODUCTION TO THE PRIMARY SOURCE KIT

KEY TO THE PRIMARY SOURCE ICONS

PRIMARY SOURCES AND CONTEXT PAGES

Primary Source # 1 1633 - 1634

White, Father Andrew. "A briefe relation of the voyage unto Maryland, [1633-1634]." Calvert Papers (Additional), MS.174.1. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 2 1792

Benjamin Banneker. *Benjamin Banneker's Pennsylvania, Delaware, Maryland and Virginia Almanack and Ephemeris for the Year of Our Lord 1792.* Baltimore: William Goddard and James Angell, 1792. MAY 42.B21 1792. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 3 1797

Baltimore. "An Ordinance to preserve the health of the city, and to prevent the introduction of pestilential and other infectious diseases into the same. Approved, April 7th, 1797." In *Ordinances of the Corporation of the City of Baltimore.* Baltimore: Philip Edwards, 1797. MJS 57.18 1797. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 4 1814 - c. 1830

"Stage Route from Baltimore to Pittsburg and Wheeling [28 March 1814]." *Baltimore Patriot.* Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Stockton and Stokes. "United States Mail Coach to Philadelphia [27 December 1821]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

James Williamson, & Co. "Georgetown, Washington and Annapolis Mail Stage [31 December 1825]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Hutchinson and Weart. "Travelling to Pittsburg [c. 1830]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 5 1825

Hollins, William. "Chesapeake and Ohio Canal. No. 3. [4 July 1825]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 6 1826

Jefferson. "To Stephen Watters, Esq. [1826]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 7 1828

Meineke, C. "The Railroad, A Characteristic Divertimento for the Piano Forte [23 July 1828]." Published by John Cole, Baltimore. Cover of sheet music. Hambleton Collection, H168. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 8 1840

Donaldson, W., Wagenseller, J., Hepburn, Jas., Herr, J. and Herr, A.H.; Wilson and Herr, John Kettlewell and Co., G.R. Vickers and Co., and Symington, Thos. "To the Citizens of Baltimore [9 November 1840]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 9 1858

Winans, Ross, and Winans, Thomas. "Circular [13 September 1858]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 10 1860

"Farmers! Before You Buy a Machine, Read This! [1860]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 11 **1861**

West. Letter to Friends All and Ed [15 May 1861]. Civil War Collection, MS.1860. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 12 **1861**

Newspaper article and picture
"The Winan's Steam-Gun, Lately Captured on Its Way to Harper's Ferry." *Frank Leslie's Illustrated Newspaper*, 1861. Z24.1319. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 13 **c. 1868**

Sachse, E. and Co. "The Chesepeake Marine Rail Way and Dry Dock Co. of Baltimore, Md. [c. 1868]." Tinted lithograph. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 14 **1875**

Winans, Ross. "The Harbor Nuisance." In *Gleanings from Various Authors on Sanitary Matters*, 42-44. Baltimore: John P. Des Forges, 1875. Winans Papers, MS.916, Box 24. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 15 **1877**

Baltimore and Ohio Railroad. "Statement of Losses and Damages during Strike in July 1877." Baltimore and Ohio Railroad Records, MS. 2090. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 16 **1877**

"Maryland. - The Baltimore and Ohio Railroad Strike - Scenes and Incidents of the Conflict between the Sympathizers with the Strikers and the Fifth and Sixth Regiments Maryland Militia, in Baltimore, July 20th. - From Sketches by Our Special Artists." *Frank Leslie's Illustrated Newspaper*, August 4, 1877, 1. MB 4182. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 17 **1877**

"Singing by Wire." *Baltimore Sun*, November 30, 1877, p. 4, col. D. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

"The Telephone." *Baltimore Sun*, December 18, 1877, p. 4, col. B. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

"A Telephone." *Baltimore Sun*, December 25, 1877, p. 4, col. B. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 18 c. 1882

"William Wilkens and Co., Manufacturers of Steam-Curled Hair and Bristles [c. 1882]." *Journal of Commerce and Manufacturers' Record*, p. 14. Advertisement. MB 1693. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 19 1883

Otis, George A. and Huntington, D. L. "Summary of Sixty-three Cases of Amputations of the Leg for Complicated Shot Injuries unattended by Fracture." In *The Medical and Surgical History of the War of the Rebellion.* Part III, Vol. II. Prepared under the direction of Joseph K. Barnes. Washington: Government Printing Office, 1883. RD 205.U5. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 20 1883

"What's the News? [1883]." Claude Kooken Papers, MS.1886. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 21 1888

Bureau of Industrial Statistics and Information. "Strikes - By Years and Industries." In *Second Biennial Report of the Bureau of Industrial Statistics and Information, for the years 1886-87.* Annapolis, Maryland, 1888. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 22 c. 1895

Gamse, H. and Brothers. "Tolchester Beach, MD. [c. 1895]." Color lithograph broadside. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 23 1895

Bureau of Industrial Statistics. "Cost of the Strike." In *Third Annual Report of the Bureau of Industrial Statistics of Maryland. 1895.* Baltimore: The Sun Book and Job Printing Office, 1895. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 24 1897

Chesapeake and Potomac Telephone Company. "Pay Station Contract of the Chesapeake and Potomac Telephone Company of Baltimore City [1 August 1897]." VF. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 25 1905

Bureau of Statistics and Information. Photographs of "A Sample Sweatshop" and a "Model Sweatshop Now Maintained Under the Law." In *Thirteenth Annual Report of the Bureau of Statistics and Information of Maryland. 1904*, 33 and 69. Baltimore: Kohn and Pollock, 1905. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 26 1911

Vacuum Sanitary Carpet Cleaning Co. "No Fuss! No Muss! No Dust! The New Vacuum System House-cleaning [1911]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 27 c. 1915 - 1922

Bureau of Recreation. "5 of the 2000 who use the City Baths [c. 1915]." Photograph. Bureau of Recreation Collection, 1966.3. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Bureau of Recreation. "6 of the 5000 who have not yet learned to bathe [c. 1915]." Photograph. Bureau of Recreation Collection, 1966.3. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Hughes Company "Public Baths at 1525 Eastern Avenue [29 April 1922]." Photograph. Hughes Collection, MC 6414, No. 22891. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 28 c. 1918

Gallagher, Edward J. "The Convenient Kitchen [c. 1918]." Advertisement. Gallagher Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 29 c. 1921

Photograph of northwest corner of Pratt and Light streets, Baltimore [c. 1921]. MC 6976. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 30 1925

The United Railways and Electric Company. "This is Baltimore: An Historic, Pleasant, Thriving City [1925]." Map. PAM 4176. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 31 1927

Hawks, Arthur W., Jr. *Giving More: Charging Less: Growing Faster.* Year Book and Annual Report. Baltimore: Consolidated Gas Electric Light and Power Company of Baltimore, 1927. MHD 9684.2 C755R. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 32 c. late 1920s

Baltimore Gas and Electric Company. Photograph of lamp department, Baltimore Gas and Electric appliance store [c. late 1920s]. BG&E 4153. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 33 1939

Baltimore Gas and Electric Company. Photograph of Baltimore Gas and Electric appliance store [1939]. BG&E 4153. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 34 1946

Glenn L. Martin Company. "War Record of Martin Bombers: First Eighteen Months [13 December 1946]." Maryland World War II Collection, MS.2010. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 35 c. 1947

Photographs (3) of the construction of pre-fabricated housing in Harundale, Maryland [c. 1947]. MC 5909, Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Baltimore Gas and Electric Company. Photograph of a pre-fabricated house in Harundale, Maryland [31 March 1947]. BG&E 17418. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 36 c. 1950

Baltimore Gas and Electric Company. Photograph of Edmondson Village Shopping Center [c. 1950]. BG&E 18398B. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 37 1954

Henderson, Paul. Photograph of television talk show, Channel 13, Baltimore [January 1954]. Henderson Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 38 1972

McCloskey, Ann. Letter to Mr. and Mrs. Francis S. Key [1 August 1972]. OH 8053-8061. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 39 1982

Volker, Walter H. Interview by John T. King III, 27 August 1982. Transcript of tape recording. OH 8460. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

Primary Source # 40 1982

Penn, Austin E. Interview by John T. King III, 1 October 1982. Transcript of tape recording. OH 8462. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

ENCOUNTERING MARYLAND'S PAST Volume I: Science, Technology, and Invention in History

AN INTRODUCTION TO THE PRIMARY SOURCE KIT

Encountering Maryland's Past, Volume I: Science, Technology, and Invention in History offers history teachers the opportunity to use primary sources from the Maryland Historical Society to activate students' interest in United States history and to encourage participation in National History Day. The first in an annual series, this kit features original documents, images, maps, oral histories, broadsides, and a variety of other resources relevant to the 1999 National History day theme "Science, Technology, and Invention in History." (For more information on National History Day, see "Introducing National History Day" in the teacher's guide.) This kit comes complete with a volume of primary sources related to the History Day theme, and *A Teacher's Guide to Interpreting Primary Sources.* The teacher's guide features a set of activity sheets for use in gathering and interpreting data from multiple sources. *All materials in the primary source kits are reproducible.*

Analysis of authentic materials from the past encourages students to connect local history to broader events occurring in the history of the nation. Working with primary sources in the classroom can result in interesting discussions that lead into topics traditionally covered in the American history curriculum. Appropriate for use in elementary, middle, and high school classrooms, the sources can also be employed to teach economics, political science, civics, geography, and other facets of social studies. Teachers may choose to use the primary source kit in one of the following ways:

- To introduce new topics in the curriculum;
- To facilitate discussion in the classroom;
- To capture students' interest by looking at issues through a "local lens";
- To involve students in cooperative learning teams;
- To develop and refine students' analytical and problem-solving skills;
- To encourage students to carry out historical research;
- To kick off National History Day projects.

Introduction to the Components of the Primary Source Kit

A TEACHER'S GUIDE TO INTERPRETING PRIMARY SOURCES

Encountering Maryland's Past: An Introduction to the Primary Source Kit

This section includes an overview of the primary source kit and an introduction to primary and secondary sources.

Using Primary Sources in the Classroom: Lesson Plan Ideas

This section presents strategies for incorporating primary sources into the classroom. It includes instructions for taking both a first look and an in-depth look at primary sources.

Reproducible Worksheets

This instructional set includes worksheets to teach students how to:

- distinguish between primary and secondary sources;
- interpret different types of primary sources (e.g. broadside/ads, documents, maps, pictures, objects, and oral histories);
- take an idea and turn it into a research project.

The worksheets guide students in a thorough examination of all facets of the source so that they are prepared to make strong conclusions supported by the source. *All of the worksheets are reproducible.* In addition to serving as "tools for decoding" primary sources in *Encountering Maryland's Past*, the worksheets are designed to work well with a variety of primary sources, including materials teachers might borrow from another cultural institution or bring from home.

Materials Useful for Historical Research Projects

Included in the teacher's guide is a guide for students on how to conduct historical research, guidelines for creating an annotated bibliography, a timeline for History Day and other long-term research projects, and a rubric for assessing student research projects.

Introducing National History Day

This section provides a brief overview of this national program for middle and high school students, including where to go for more information.

VOLUME OF PRIMARY SOURCES

Primary Sources

Within the kits, teachers will find a set of primary sources drawn from the collection of the Maryland Historical Society. Dating from the earliest days of Maryland settlement to the present, each source has relevance to the annual History Day theme.

All primary sources are reproducible. Each source is marked with a stamp that indicates the location of the source within the Maryland Historical Society collection and documents the right to reproduce sources for educational use.

Key to abbreviations

MS = Manuscripts Department
PP = Prints and Photographs Department
REF = Reference Department
VF = Vertical Files

Maryland Historical Society Library
201 W. Monument St. Baltimore, MD 21201

MS 117

Reproduction Permission Granted
for Educational Purposes Only

EXAMPLE OF STAMP

Context Pages

The context pages provide a way for teachers (and students) to familiarize themselves with the sources prior to their use in the classroom. These pages include the following information for each source:

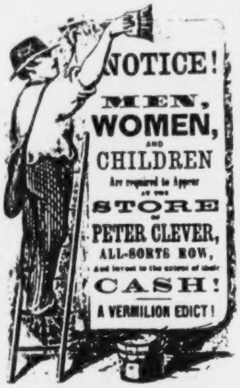
- ***A bibliographic entry***
- ***The What? Who? When? Where? and Why? of the source***
- ***A brief description with background information***
- ***Reference to a secondary source with more information on topic(s) explored by the source***

  Many references will be to *Maryland: A Middle Temperament* by Robert J. Brugger.
- ***Research topics and discussion prompts***

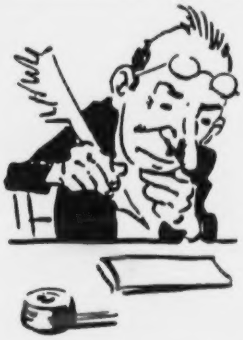
  Each source is multi-faceted and should lend itself to the discussion and investigation of a variety of topics. Listed on each context page are broad questions and research topics for each source. Note that many of the research topics and discussion prompts are *recurrent themes,* appearing throughout the volume. By focusing on one of the recurrent themes, students can make connections between sources, working with more than one to investigate a general historical theme.

ENCOUNTERING MARYLAND'S PAST
A Primary Source Kit from the Maryland Historical Society

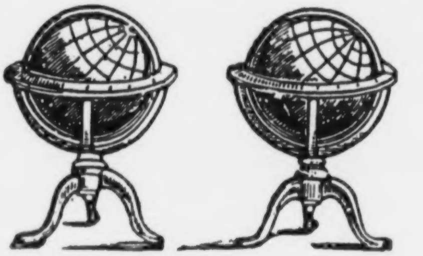
KEY TO PRIMARY SOURCE ICONS


NOTICE!
MEN,
WOMEN,
AND
CHILDREN
Are required to Appear
STORE
PETER CLEVER,
ALL-SORTS ROW,
CASH!
A VERMILION EDICT!

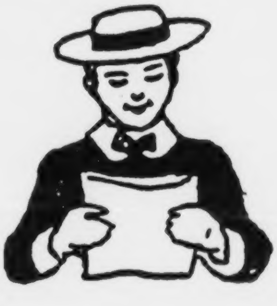
AD/BROADSIDE



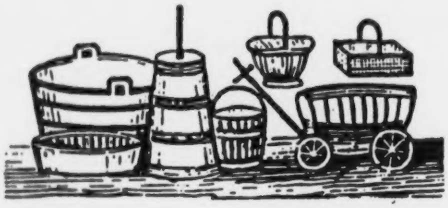
DOCUMENT



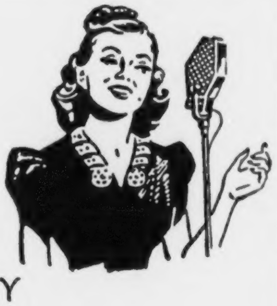
MAP



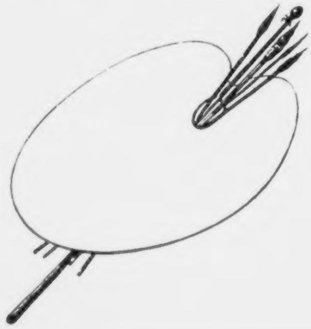
NEWSPAPER



OBJECT



ORAL HISTORY



PICTURE

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 1 (Document)

White, Father Andrew. "A briefe relation of the voyage unto Maryland, [1633-1634]." Calvert Papers (Additional), MS.174.1. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	An account of Leonard Calvert's expedition to the New World to found the colony of Maryland
WHO?	Written by Father Andrew White, a member of the expedition
WHEN?	1633 - 1634
WHERE?	Describes the voyage across the Atlantic and the arrival in Southern Maryland
WHY?	To record his observations for posterity and to report back to his superiors in Europe

Description of the Source

In this source, Father White gives a first-hand account of the clothing, housing, weaponry, and other technologies of Native Americans living in what is now Maryland. Father White gave his manuscript to Leonard Calvert, the first governor of the province, who sent it to his business partner in England. The manuscript returned to Europe aboard the *Ark* just two months after this same ship had landed at St. Clement's Island with Maryland's first colonists.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 3-14. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did Native Americans adapt their environment to meet their needs?
- What was the role of technology in the relationship between Native Americans and English settlers? How did Europeans adopt and adapt Native American technology?
- What forms of technology did Europeans use to explore and settle the Chesapeake Bay?

A briefe relation of the voyage unto Maryland

[illegible]

[illegible] generally they weare [illegible] a locke at the left eare, and sometimes at [illegible] with a string of wampampeake or roanoke about [illegible] of their [illegible] the forme of a fish of copper in their foreheads. they all weare beads about their neckes men and women, with otherwhiles a hawkes bill or the talents of an eagle or the teeth of beasts, or sometimes a peice of [illegible] they weare [illegible] like mantles [illegible] a bow and bundle of arrowes an ell long, feathered with turkies feathers, and headed with points of deeres hornes, peices of glasse, or flints, which they make fast with an excellent glew [illegible] shoote at a small marke, or [illegible] little birds of the bignes of sparrowes, and they often exercise themselves by flinging a small sticke in the aire and meeting it with an arrow before it come to ground. their bow is but weake and shoots not [illegible] a little way. they daily kill partridges, deere, turkies, squirrells and the like of which there is wonderfull store, but as yet wee dare not venture our selves in the woods to fetch them, nor have wee leisure. Their houses are built in an halfe ovall forme 20 foote long, and 9 or 10 foote high with a place open in the top halfe a yard square, whereby they admitt the light, and let forth the smoake, for they build their fire, after the manner of ancient halls of England, in the middle of the house, about which they lie to sleepe upon mats spread on a low scaffold halfe a yard from ground. [illegible]

[illegible] a naturall [illegible]

[illegible]

Maryland Historical Society Library
201 W Monument St. Baltimore, MD 21201

MS 174.1

Reproduction Permission Granted
for Educational Purposes Only

ORIGINAL NARRATIVES
OF EARLY AMERICAN HISTORY

NARRATIVES
OF EARLY MARYLAND

1633—1684

EDITED BY
CLAYTON COLMAN HALL, LL.B., A.M.
OF THE MARYLAND HISTORICAL SOCIETY

WITH A MAP AND TWO FACSIMILES

CHARLES SCRIBNER'S SONS
NEW YORK - - - - - - 1910

With this intention he tooke our pinnace and went therein higher up the river. In their way they found still all the Indians fleede from their houses; till comeing to Patomecke towne, he found there the king[1] thereof a Childe, governed by Archihoe, his uncle. Here, by an Interpretour, they had some speech with Archihoe, a grave and considerate man, and shewed his errours in part unto him, which he seemed to acknowledge, bidding them all very welcome. They could proceed but little with him in matters of religion, their interpretor being a protestant of Virginia, but promised shortly to returne to him, some one or other; which he desired they would and promised they should have the best entertainment they could make them and his men should hunt and fish for them, and he and they would devide what soever they got, being (as they all generally be) of a very loveing and kinde nature.

ffrom here they went to Pascatoway, the seat of the Emperour, where 500 bowmen came to meet them at the water side. Here the Emperour, lesse feareing then the rest came privately aboard, where he found kind usage, and perceiveing we came with good meaneing towards them, gave leave to us to sett downe where we pleased. The king being aboard, his men by the water side feared some treason, till by interpretours we assured them otherwise. In this journey our governour tooke Captaine Henrie fleet, and his 3 barkes, who had beene a firebrand to inflame the Indians against us. This Capt: brought aboard our shipp accepted of a proportion in our beaver trade, for to serve my Lord, excellent in language, love, and experience with the Indians, most of all other. Thus he remained, untill haveing talked with Claborne, another of our chiefe enemies, he revolted, and leaveing us went againe and traded with out leave, and got that time above 200 skins, and as we feared incensed the Indians against us; yet first he had brought us to as noble a seat as could be wished, and as good ground as I suppose is in all Europe.

[1] See pp. 84, 125, *infra*.

Whilest our governour was abroad, the Indians began to loose feare and come to our coart of guarde, and sometimes aboard our shipp, wondering where that tree should grow, out of which so great a canow should be hewen, supposing it all of one peece, as their canows use to be. They trembled to heare our ordinance thinking them fearefuller then any thunder they had ever heard.

The governour being returned from Pascatoway, by fleets directions, we came some 9 or 10 leagues lower in the river Patomecke, to a lesser river on the north side of it, as bigge as Thames, which we call S^t Georges. This river makes 2 excellent bayes, wherein might harbour 300 saile of 1000 tunne a peece with very great safetie, the one called S^t Georges bay,[1] the other, more inward, S^t Maries. On the one side of this river lives the king of Yoacomaco, on the other our plantation is seated, about halfe a mile from the water, and our towne we call S^t Maries.

To avoid all occasion of dislike, and Colour of wrong, we bought the space of thirtie miles of ground of them, for axes, hoes, cloth and hatchets, which we call Augusta Carolina. It made them more willing to enterteine us, for that they had warres w^th the Sasquasahannockes, who come sometimes upon them, and waste and spoile them and their country, for thus they hope by our meanes to be safe, God disposeing things thus for those which were to come to bring the light of his holy law to these distressed, poore infidels, so that they doe indeed like us better for comeing so well provided, assuring themselves of greater safety, by liveing by us. Is not this miraculous, that a nation a few daies before in generall armes against us and our enterprise should like lambes yeeld themselves, glad of our company, giveing us houses, land, and liveings for a trifle. *Digitus dei est hic*,[2] and some great good is meant toward this people. Some few Indians are here to stay by us till next yeare, and then the land is wholy to be ours alone.

The natives of person be very proper and tall men, by nature swarthy, but much more by art, painting themselves with colours in oile a darke read, especially about the head,

[1] Afterward called St. Inigo's Creek.

[2] "This is the finger of God." Ex. viii. 19.

---

which they doe to keep away the gnats, wherein I confesse there is more ease then honesty.[1] As for their faces they use sometimes other colours, as blew from the nose downeward, and read upward, and sometimes contrary wise with great variety, and in gastly manner. They have noe bearde till they be very old, but insteed thereof sometimes draw long lines with colours from the sides of their mouth to their eares. They weare their [hair] diversly some haveing it cut all short, one halfe of the head, and long on the other; others have it all long, but generally they weare all a locke at the left eare, and sometimes at both eares which they fold up with a string of wampampeake or roanoake about it. Some of their Caucorouses[2] as they terme them, or great men, weare the forme of a fish of Copper in their foreheads. They all weare beade about their neckes, men and women, with otherwhiles a haukes bill or the talents of an eagles or the teeth of beasts, or sometimes a pare of great eagles wings linked together and much more of the like. Their apparell is deere skins and other furrs, which they weare loose like mantles, under which all their women, and those which are come to mans stature, weare perisomata[3] of skins, which keep them decently covered from all offence of sharpe eies. All the rest are naked, and sometimes the men of the younger sort weare nothing at all.

Their weapons are a bow and a bundle of arrowes, an ell long, feathered with turkies feathers, and headed with points of deeres hornes, peeces of glasse, or flints, which they make fast with an excellent glew which they have for that purpose. The shaft is a small cane or sticke, wherewith I have seene them kill at 20 yards distance, little birds of the bignesse of sparrows, and they use to practise themselves by casting up small stickes in the aire, and meeting it with an arrow before it come to ground. Their bow is but weake and shoots level but a little way. They daily catch partridge, deere, turkies, squirrels and the like of which there is wonderfull [plenty?], but as yet we dare not venture ourselves in the woods to seeke them, nor have we leasure.

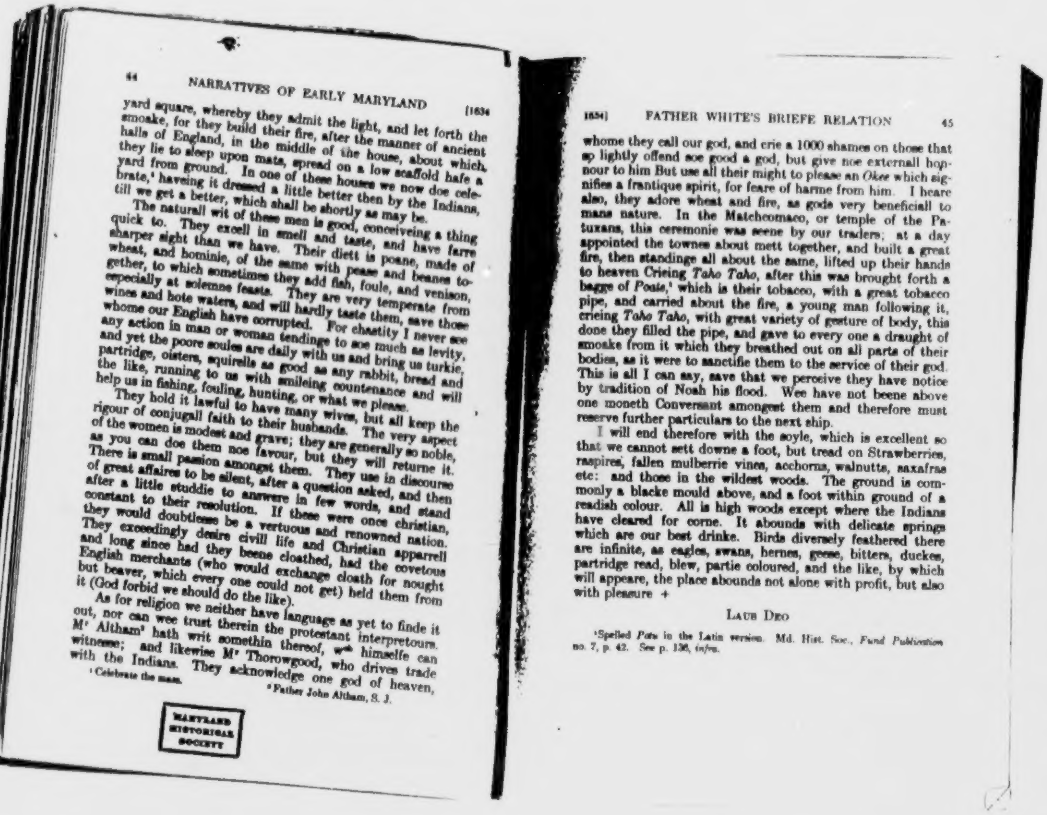
Their houses are built in an halfe ovall forme 20 foot long, and 9 or 10 foot high with a place open in the top, halfe a

[1] Honesty in the now obsolete sense of seemliness.

[2] See p. 84, *infra*.

[3] Girdles.

BEST COPY AVAILABLE



yard square, whereby they admit the light, and let forth the smoake, for they build their fire, after the manner of ancient halls of England, in the middle of the house, about which they lie to sleep upon mats, spread on a low scaffold hafe a yard from ground. In one of these houses we now doe celebrate,[1] haveing it dressed a little better then by the Indians, till we get a better, which shall be shortly as may be.

The naturall wit of these men is good, conceiveing a thing quick to. They excell in smell and taste, and have farre sharper sight than we have. Their diett is poane, made of wheat, and hominie, of the same with pease and beanes together, to which sometimes they add fish, foule, and venison, especially at solemne feasts. They are very temperate from wines and hote waters, and will hardly taste them, save those whome our English have corrupted. For chastity I never see any action in man or woman tendinge to soe much as levity, and yet the poore soules are daily with us and bring us turkie, partridge, oisters, squirells as good as any rabbit, bread and the like, running to us with smileing countenance and will help us in fishing, fouling, hunting, or what we please.

They hold it lawful to have many wives, but all keep the rigour of conjugall faith to their husbands. The very aspect of the women is modest and grave; they are generally so noble, as you can doe them noe favour, but they will returne it. There is small passion amongst them. They use in discourse of great affaires to be silent, after a question asked, and then after a little studdie to answere in few words, and stand constant to their resolution. If these were once christian, they would doubtlesse be a vertuous and renowned nation. They exceedingly desire civill life and Christian apparrell and long since had they beene cloathed, had the covetous English merchants (who would exchange cloath for nought but beaver, which every one could not get) held them from it (God forbid we should do the like).

As for religion we neither have language as yet to finde it out, nor can wee trust therein the protestant interpretours. Mr Altham[2] hath writ somethin thereof, wch himselfe can witnesse; and likewise Mr Thorowgood, who drives trade with the Indians. They acknowledge one god of heaven,

[1] Celebrate the mass.

[2] Father John Altham, S. J.

MARYLAND
HISTORICAL
SOCIETY

whome they call our god, and crie a 1000 shames on those that so lightly offend soe good a god, but give noe externall honnour to him But use all their might to please an *Okee* which signifies a frantique spirit, for feare of harme from him. I heare also, they adore wheat and fire, as gods very beneficiall to mans nature. In the Matchcomaco, or temple of the Patuxans, this ceremonie was seene by our traders; at a day appointed the townes about mett together, and built a great fire, then standinge all about the same, lifted up their hands to heaven Crieing *Taho Taho*, after this was brought forth a bagge of *Poate*,[1] which is their tobacco, with a great tobacco pipe, and carried about the fire, a young man following it, crieing *Taho Taho*, with great variety of gesture of body, this done they filled the pipe, and gave to every one a draught of smoake from it which they breathed out on all parts of their bodies, as it were to sanctifie them to the service of their god. This is all I can say, save that we perceive they have notice by tradition of Noah his flood. Wee have not beene above one moneth Conversant amongest them and therefore must reserve further particulars to the next ship.

I will end therefore with the soyle, which is excellent so that we cannot sett downe a foot, but tread on Strawberries, raspires, fallen mulberrie vines, acchorns, walnutts, saxafras etc: and those in the wildest woods. The ground is commonly a blacke mould above, and a foot within ground of a readish colour. All is high woods except where the Indians have cleared for corne. It abounds with delicate springs which are our best drinke. Birds diversely feathered there are infinite, as eagles, swans, hernes, geese, bitters, duckes, partridge read, blew, partie coloured, and the like, by which will appeare, the place abounds not alone with profit, but also with pleasure +

LAUS DEO

[1] Spelled *Pote* in the Latin version. Md. Hist. Soc., *Fund Publication* no. 7, p. 42. See p. 136, *infra*.

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

MS 174.1

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 2 (Document)

Benjamin Banneker. *Benjamin Banneker's Pennsylvania, Delaware, Maryland and Virginia Almanack and Ephemeris for the Year of Our Lord 1792.* Baltimore: William Goddard and James Angell, 1792. MAY 42.B21 1792. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	An almanac with information relevant to the states of Pennsylvania, Delaware, Maryland, and Virginia
WHO?	Compiled by Benjamin Banneker
WHEN?	1792
WHERE?	Printed in Baltimore
WHY?	To provide a variety of information useful in day-to-day life

Description of the Source

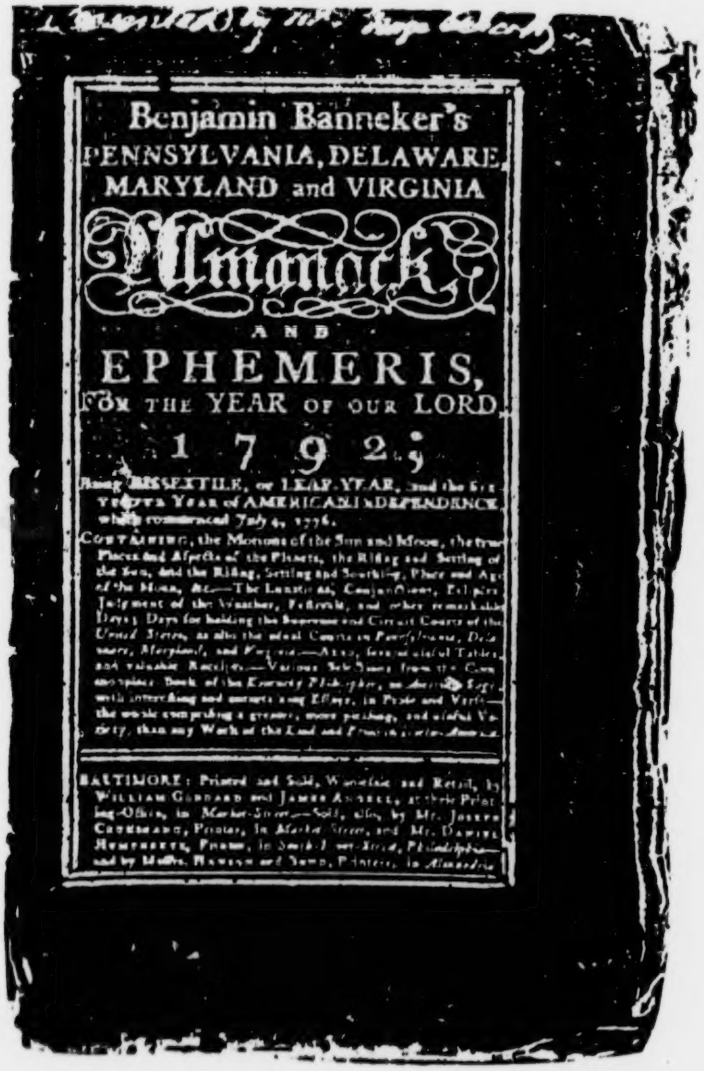
One in an annual series of almanacs prepared by free African-American Benjamin Banneker, this volume includes predictions of weather, tides, and the movement of the sun, moon, and planets; it also contains court schedules, prose, poetry, and advice on household matters. On its cover, the almanac claims to present "a greater, more pleasing, and useful Variety, than any Work of the Kind and Price in North America." After seeing Banneker's almanac, Thomas Jefferson sent a copy to the Academy of Sciences in Paris, citing it as proof that those of African descent have "talents equal to those of the other colours of men." This excerpt features remedies for the "bloody flux," a skin "cancer," corns, and other ailments.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 169-170. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate the life of Benjamin Banneker, free African-American scientist, surveyor, and inventor. What adversities did he face as an African-American scientist in 18th century America?
- Investigate the history of medicine and medical technology in the late 18th century America.
- How were almanacs used in post-Revolutionary America?
- Investigate the history of medical practices in America.



Benjamin Banneker's
PENNSYLVANIA, DELAWARE,
MARYLAND and VIRGINIA
Almanack,
AND
EPHEMERIS,
FOR THE YEAR OF OUR LORD
1792;

Being BISSEXTILE, or LEAP-YEAR, and the SIXTEENTH YEAR of AMERICAN INDEPENDENCE, which commenced *July* 4, 1776.

CONTAINING, the Motions of the Sun and Moon, the true Places and *Aspects* of the Planets, the Rising and Setting of the Sun, and the Rising, Setting and Southing, Place and Age of the Moon, &c.—The Lunations, Conjunctions, Eclipses, Judgment of the Weather, Festivals, and other remarkable Days; Days for holding the Supreme and Circuit Courts of the *United States*, as also the usual Courts in *Pennsylvania*, *Delaware*, *Maryland*, and *Virginia*.—Also, several useful Tables, and valuable Receipts.—Various Selections from the Commonplace-Book of the *Kentucky Philosopher*, an *American Sage*; with interesting and entertaining *Essays*, in Prose and Verse—the whole comprising a greater, more pleasing, and useful Variety, than any Work of the *Kind* and *Price* in *North-America*.

BALTIMORE: Printed and Sold, Wholesale and Retail, by WILLIAM GODDARD and JAMES ANGELL, at their Printing-Office, in *Market-Street*.—Sold, also, by Mr. JOSEPH CRUKSHANK, Printer, in *Market-Street*, and Mr. DANIEL HUMPHREYS, Printer, in *South-Front-Street*, *Philadelphia*—and by Messrs. HANSON and BOND, Printers, in *Alexandria*.

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD

MS 2700

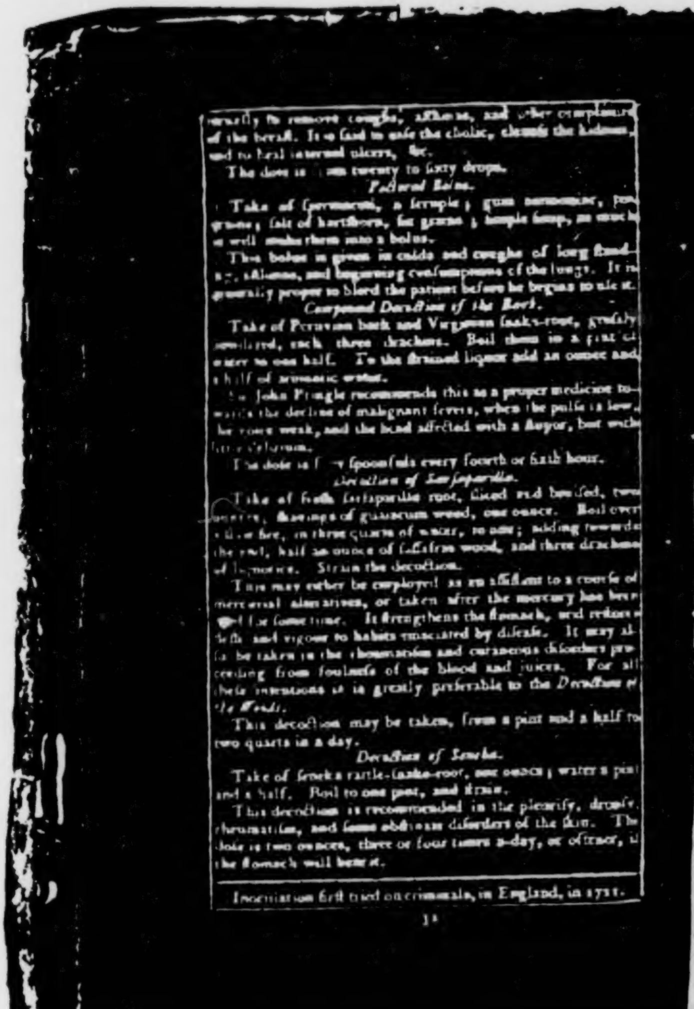
Reproduction Permission
for Educational Purposes Only

PRIMARY SOURCE # 2

Encountering Maryland's Past, Volume I: Science, Technology, and Invention

A Primary Source Kit from the Maryland Historical Society

Maryland Historical Society Library
201 W. Monument St. Baltimore
MS 2700
Reproduction Permission Granted
for Educational Purposes Only



nerally to remove coughs, aſthmas, and other complaint of the breaſt. It is ſaid to eaſe the cholic, cleanſe the kidneys, and to heal internal ulcers, &c.

The doſe is from twenty to ſixty drops.

Pectoral Bolus.

Take of ſpermaceti, a ſcruple; gum ammoniac, ten grains; ſalt of hartſhorn, ſix grains; ſimple ſyrup, as much as will make them into a bolus.

This bolus is given in colds and coughs of long ſtanding, aſthmas, and beginning conſumptions of the lungs. It is generally proper to bleed the patient before he begins to uſe it.

Compound Decoction of the Bark.

Take of Peruvian bark and Virginian ſnake-root, groſly powdered, each three drachms. Boil them in a pint of water to one half. To the ſtrained liquor add an ounce and a half of aromatic water.

Sir John Pringle recommends this as a proper medicine towards the decline of malignant fevers, when the pulſe is low, the voice weak, and the head affected with a ſtupor, but with little delirium.

The doſe is four ſpoonfuls every fourth or ſixth hour.

Decoction of Sarſaparilla.

Take of freſh ſarſaparilla root, ſliced and bruiſed, two ounces; ſhavings of guaiacum wood, one ounce. Boil over a ſlow fire, in three quarts of water, to one; adding towards the end, half an ounce of ſaſſafras wood, and three drachms of liquorice. Strain the decoction.

This may either be employed as an aſſiſtant to a courſe of mercurial alteratives, or taken after the mercury has been uſed for ſome time. It ſtrengthens the ſtomach, and reſtores fleſh and vigour to habits emaciated by diſeaſe. It may alſo be taken in the rheumatiſm and cutaneous diſorders proceeding from foulneſs of the blood and juices. For all theſe intentions it is greatly preferable to the *Decoction of the Woods.*

This decoction may be taken, from a pint and a half to two quarts in a day.

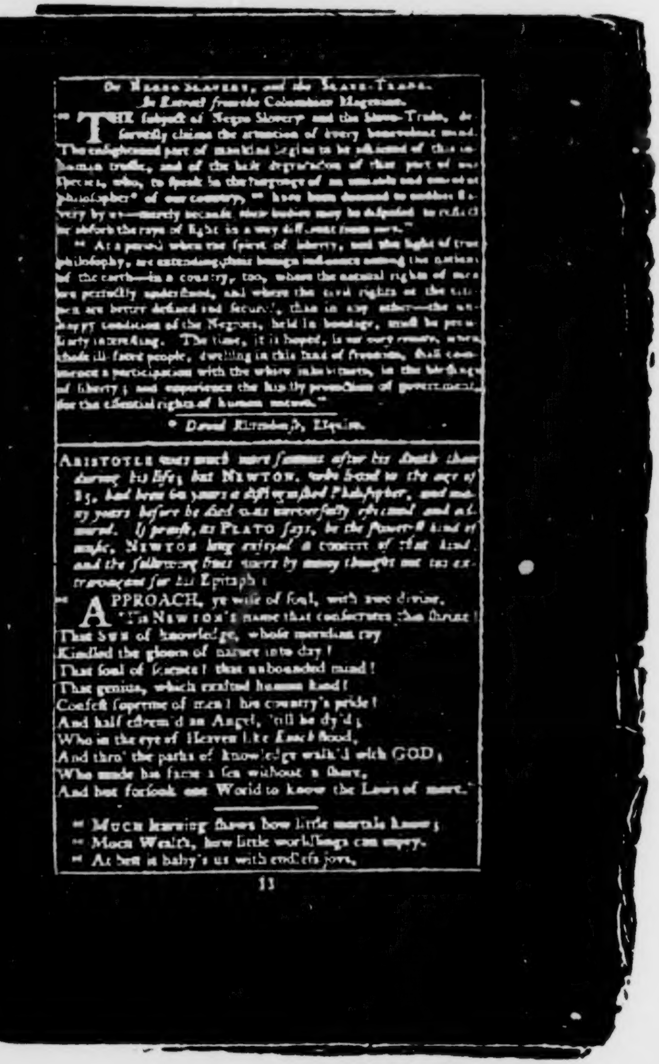
Decoction of Seneka.

Take of ſeneka rattle-ſnake-root, one ounce; water a pint and a half. Boil to one pint, and ſtrain.

This decoction is recommended in the pleuriſy, dropſy, rheumatiſm, and ſome obſtinate diſorders of the ſkin. The doſe is two ounces, three or four times a-day, or oftener, if the ſtomach will bear it.

Inoculation firſt tried on criminals, in England, in 1721.

18



On NEGRO SLAVERY, and the SLAVE-TRADE.

An Extract from the Columbian Magazine.

"THE ſubject of Negro Slavery and the Slave-Trade, deſervedly claims the attention of every benevolent mind. The enlightened part of mankind begins to be aſhamed of this inhuman traffic, and of the baſe degradation of that part of our ſpecies, who, to ſpeak in the language of an amiable and eminent philoſopher* of our country, "have been doomed to endleſs ſlavery by us—merely becauſe their bodies may be diſpoſed to reflect or abſorb the rays of light in a way different from ours."

"At a period when the ſpirit of liberty, and the light of true philoſophy, are extending their benign influence among the nations of the earth—in a country, too, where the natural rights of men are perfectly underſtood, and where the civil rights of the citizen are better defined and ſecured, than in any other—the unhappy condition of the Negroes, held in bondage, muſt be peculiarly intereſting. The time, it is hoped, is not very remote, when theſe ill-fated people, dwelling in this land of freedom, ſhall commence a participation with the white inhabitants, in the bleſſings of liberty; and experience the kindly protection of government, for the eſſential rights of human nature."

---

* *David* Rittenhouſe, Eſquire.

ARISTOTLE *was much more famous after his death than during his life; but* NEWTON, *who lived to the age of 85, had been 60 years a diſtinguiſhed Philoſopher, and many years before he died was univerſally eſteemed and admired. If praiſe, as* PLATO *ſays, be the ſweeteſt kind of muſic,* NEWTON *long enjoyed a concert of that kind, and the following lines were by many thought not too extravagant for his* Epitaph:

"APPROACH, ye wiſe of ſoul, with awe divine,
'Tis NEWTON's name that conſecrates this ſhrine!
That SUN of knowledge, whoſe meridian ray
Kindled the gloom of nature into day!
That ſoul of ſcience! that unbounded mind!
That genius, which exalted human kind!
Confeſt ſupreme of men! his country's pride!
And half eſteem'd an Angel, 'till he dy'd;
Who in the eye of Heaven like *Enoch* ſtood,
And thro' the paths of knowledge walk'd with GOD;
Who made his fame a ſea without a ſhore,
And but forſook one World to know the Laws of more."

"MUCH learning ſhews how little mortals know;
"MUCH Wealth, how little worldlings can enjoy.
"At beſt it baby's us with endleſs joys,

as poſſible. Then take a quantity of dry powder of wood aſhes, mixed with a ſixth part of the ſame quantity of the aſhes of burnt bones; put it into a tin box, with holes in the top, and ſhake the powder on the ſurface of the plaſter till the whole is covered over with it, letting it remain for half an hour, to abſorb the moiſture; Then apply more powder, rubbing it on gently with the hand, and repeating the application of the powder, till the whole plaſter becomes a dry, ſmooth ſurface.

All trees cut down near the ground ſhould have the ſurface made quite ſmooth, rounding it off in a ſmall degree, as before mentioned; and the dry powder directed to be uſed afterwards, ſhould have an equal quantity of powder of alabaſter mixed with it, in order the better to reſiſt the dripping of the trees and heavy rains.

If any of the compoſition be left for a future occaſion, it ſhould be kept in a tub, or other veſſel, and urine of any kind poured on it, ſo as to cover the ſurface, or otherwiſe the atmoſphere will greatly hurt the efficacy of the application.

Where lime rubbiſh of old buildings cannot be eaſily got, take powdered chalk, or common lime, after having been ſlacked a month at leaſt.

As the growth of the tree will gradually affect the plaſter, by raiſing up its edges near the bark, care ſhould be taken, where that happens, to rub it over with the finger when occaſion may require (which is beſt done when moiſtened by rain) that the plaſter may be kept whole, to prevent the air and wet from penetrating into the wound.

USEFUL RECEIPTS AND DIRECTIONS.

An approved Medicine for the BLOODY FLUX.

TAKE a large ſpoonful of cochineal bruiſed fine, half an ounce or more of cinnamon, and three ounces of loaf ſugar—boil them in a pottle of ſpring water, over a ſlow fire, till it is reduced to about three pints; the patient to drink half a pint of it milk-warm, and the reſt a gill at a time warm, as common drink—Nothing elſe to be drunk while it laſts. If the above does not quite cure the perſon, repeat the ſame again, which ſcarce ever failed—When the flux is ſtopt, and the patient finds a pain about the ſtomach, give a ſpoonful or two of Daffy's elixir, as his or her ſtrength will bear it; the food to be rice and milk, flour and milk, bread and milk, or poached eggs—no broth or fleſh—If no elixir is to be had, a ſpoonful of the ſyrup of rhubarb muſt be taken; If occaſion be to take phyſick, drink warm whey with it, and keep warm the day it is taken.

A remedy for the Rheumatiſm, which has never been known to fail, in any inſtance, of effecting a certain and ſpeedy cure.

Take one pound of roll brimſtone; pound it fine, and put it into an earthen pot. Pour thereon one gallon of boiling water, and ſtir it well up: After ſtanding about 24 hours it is fit for uſe. Drink half a pint in the morning before breakfaſt, and half a pint before going to bed; and a radical cure will, in the ſpace of a few weeks, be effected.

A certain cure for a Cancer.

Spread a plaſter with any common ſalve, a little wider than the cancer; take ſome white arſenic finely powdered, and ſtrew it middling thick on the plaſter; then make a border round the plaſter, about a quarter of an inch wide, with adheſive ſalve, to keep the arſenic from ſpreading wider than the cancer; apply this plaſter to the part affected; let it remain four hours, then take it off, and renew it with two more plaſters of the ſame ſort. At the end of twelve hours, you may draw out the cancer, root and branch, by means of a pair of forceps; after this operation you may cure the wound with a plaſter of common Turner's Cerate.

A remedy for Corns.

Make a plaſter on leather, with garlick, pounded to a pulp: firſt pare the corn cloſe, and then bind on the plaſter: Repeat it for three following nights, and it will cure the corn effectually.

Note, the plaſters muſt be kept on all the time.

Anodyne Balſam.

Take of white Spaniſh ſoap, one ounce; opium, unprepared, two drachms; rectified ſpirit of wine, nine ounces. Digeſt them together in a gentle heat for three days; then ſtrain off the liquor, and add to it three drachms of camphor.

This balſam, as its title expreſſes, is intended to eaſe pain. It is of ſervice in violent ſtrains and rheumatic complaints, when not attended with inflammation. It muſt be rubbed with a warm hand, on the part affected; or a linen rag moiſtened with it may be applied to the part, and renewed every third or fourth hour, till the pain abates. If the opium is left out, this will be *ſaponaceous balſam*.

The vulnerary Balſam.

Take of benzoin, powdered, three ounces; balſam of Peru, two ounces; hepatic aloes, in powder, half an ounce; rectified ſpirit of wine, two pints. Digeſt them in a gentle heat for three days, and then ſtrain the balſam.

This balſam, or rather tincture, is applied externally to heal recent wounds and bruiſes. It is likewiſe employed in

PRIMARY SOURCE # 3 (Document)

Baltimore. "An Ordinance to preserve the health of the city, and to prevent the introduction of pestilential and other infectious diseases into the same. Approved, April 7th, 1797." In *Ordinances of the Corporation of the City of Baltimore*. Baltimore: Philip Edwards, 1797. MJS 57.18 1797. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	One of the first ordinances passed to govern the newly-incorporated city of Baltimore
WHO?	Enacted and approved by the mayor and city council of Baltimore
WHEN?	Approved April 7, 1797
WHERE?	Enacted and enforced in Baltimore
WHY?	To protect the health of the citizens and the economy of the city

Description of the Source

This ordinance was designed to prevent the introduction and spread of disease in Baltimore. It particularly focused on people and goods coming into the busy port. The ordinance establishes a commission of nine to carry out the law and gives them the authority to administer the city hospital at Hawkins' Point. It calls for the removal of stagnant water, decaying produce, and animal products; limits and forbids contact with people and places infected with disease; and mandates inspection and, if necessary, quarantine of incoming vessels, passengers, and goods. On the books for less than two years, this ordinance was repealed by an ordinance passed on February 27, 1799. This ordinance is instructive in revealing what the city government viewed to be the causes of epidemics and the best approach to combatting them.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.145-146. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did Baltimore eventually eliminate the causes of epidemic in Fells Point?
- Investigate how city, state, and national governments have sought to promote public health.
- How have city health codes changed over the centuries in response to a growing awareness of the causes of disease?
- To what extent did Americans understand the causes of disease and effective ways to combat it in the late 18th century? How has our understanding of disease evolved over time?

ORDINANCES

10 200/

OF THE

CORPORATION

OF THE

CITY of BALTIMORE:

Paſſed at their Firſt Seſſion, held February, 1797.

With the
ACT OF INCORPORATION
Prefixed.

BALTIMORE:
Printed for PHILIP EDWARDS.
M,DCC,XCVII.

MJ9
57
.18
1797

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

RFF

Reproduction Permission Granted
for Educational Purposes Only

An ACT to erect Baltimore-Town, in Baltimore-County, into a City, and to incorporate the Inhabitants thereof.

WHEREAS, it is found by experience, That the good order, health, peace, and ſafety of large towns and cities cannot be preſerved, nor the evils and accidents to which they are ſubject, avoided or remedied, without an internal power, competent to eſtabliſh a police and regulation, fitted to their particular circumſtances, wants and exigencies. Therefore,

Preamble

§ I. *Be it enacted, by the General Aſſembly of Maryland,* That Baltimore-town, in Baltimore-county, ſhall be and is hereby erected into a city, by the name of the City of Balti-
nore, and the inhabitants thereof conſtituted
body politic and corporate, by the name of
he mayor and city council of Baltimore, and
s ſuch ſhall have perpetual ſucceſſion, and by
heir corporate name may ſue and be ſued,
mplead and be impleaded, grant, receive, and
o all other acts as natural perſons, and may
urchaſe and hold real, perſonal, and mixed
roperty, or diſpoſe of the ſame for the bene-
it of the ſaid city, and may have and uſe a
ity ſeal, which may be broken or altered at
leaſure. The city of Baltimore ſhall be di-
ided into eight wards, each ward to contain,
nearly as may be, an equal number of in-
abitants; the firſt diviſion ſhall be made by
ven reſpectable citizens, or a majority of
em, to be appointed by the governor and
uncil; and the corporation of the ſaid city
ereafter, from time to time, ſhall cauſe a cor-

Baltimore town erected into a City.

City ſeal.

City divided into eight wards

and they are hereby authoriſed and empowered, to contract with any other perſon or perſons for lighting the ſaid city for the remainder of the term ſpecified in ſuch contract.

Additional lamps for the uſe of the city.

And be it enacted and ordained, That the ſaid commiſſioners are hereby authoriſed and directed to contract with any perſon or perſons for ſeven additional lamps for the uſe of the city: and they are hereby directed to cauſe three of the ſaid lamps to be erected or ſuſpended within the center market-houſe, two within the market-houſe in Hanover-ſtreet, and two within the market-houſe on Fell's Point; and to cauſe the ſame to be regularly lighted in ſuch manner as the other lamps are lighted within the city.

Approved, April 3d, 1797.

An ORDINANCE to preſerve the health of the city, and to prevent the introduction of peſtilential and other infectious diſeaſes into the ſame.

Preamble.

WHEREAS it is found neceſſary in all large cities, particularly thoſe bordering on the ſeas, to eſtabliſh ſuch laws and regulations as may tend to preſerve the health of the inhabitants. And whereas it is of the utmoſt importance to the commerce of this ſtate, that the health, welfare, and proſperity of this city be preſerved, and that the origin, introduction, and ſpreading of peſtilential and other infectious diſeaſes, be prevented.

Commiſſioners to be appointed, &c.

Therefore be it enacted and ordained, by the mayor and city council of Baltimore, That nine perſons be appointed commiſſioners of health, to aid and aſſiſt the health officer for the time being, in carrying the proviſions of this ordinance into effect; and that the ſaid commiſſioners ſhall have the direction and government of the hoſpital eſtabliſhed on Hawkins's Point; ſhall be authoriſed, and they are hereby authoriſed and empowered to eſtabliſh ſuch rules and regulations for the government of the ſaid hoſpital, as to them may appear proper and neceſſary; to contract with a ſuitable perſon to ſuperintend the ſame, and for as many aſſiſtant phyſicians and nurſes, as circumſtances may at any time render neceſſary; to provide medicine, and all other articles which may be neceſſary for the comfort and accommodation of the ſick; to provide for a ready communication between the hoſpital and Fort Whetſtone Point, or the city; and to do all other matters and things, which by this or any other ordinance they are or may be required to do.

To have direction of the hoſpital

To make rules and regulations, &c.

To contract with phyſicians, &c.

Be it enacted and ordained, That all ponds of ſtagnant water, all cellars and foundations of houſes, whoſe bottoms contain ſtagnant and putrid water, all dead putrefied animals lying about the docks, ſtreets, lanes, alleys, vacant lots, or yards, all privies that have no wells ſunk under them, all grave yards, tallow chandleries, tanneries, ſugar boilers, ſkin dreſſers, dyers, glue boilers, and ſlaughter houſes, not properly regulated; all docks whoſe bottoms are alternately wet and dry, by the ebbing and flowing of the tide, all accumulation of filth in the ſtreets, lanes, alleys, and gutters thereof, all accumulations of vegetable and animal ſubſtances, undergoing a putrefactive fermentation, are hereby declar-

What are declared nuiſances.

PRIMARY SOURCE # 3
Encountering Maryland's Past, Volume I: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society
REF

ed common nuiſances; productive of offenſive vapors and noxious exhalations, the cauſes of diſeaſes, and ought to be reſtrained, regulated, and removed.

On information, &c. mayor to iſſue proclamation.

Certificate to be produced.

Be *it enacted and ordained*, In order the more effectually to prevent the introduction of peſtilential and other infectious diſeaſes into the city, that at any time when the mayor of the city ſhall receive ſatisfactory information of the exiſtence of any peſtilential, or other fatal diſeaſe, in any place on the continent, with which the citizens of Baltimore may have communication or connection, the mayor may and is hereby authoriſed to iſſue a proclamation, forbidding the entrance of all perſons coming from ſuch infected places, into the city, or within three miles thereof, and the citizens from having any communication with them, for at leaſt fifteen days; provided he, ſhe, or they cannot produce an approved certificate of their abſence from ſuch place, for at leaſt fifteen days previous thereto. And every perſon wittingly and knowingly offending againſt the directions of the ſaid proclamation, ſhall forfeit and pay one hundred dollars for every ſuch offence, one half to the informer, and the other half for the uſe of the city.

Health officer to viſit veſſels coming from infected places.

Be *it enacted and ordained*, That the health officer for the time being, ſhall, and he is hereby directed to viſit all veſſel coming from beyond the ſeas, and all other veſſels coming from ſuſpected places, in the months of April, May, June, July, Auguſt, September, October, and November, and where it ſhall appear neceſſary, detain the ſame at or below the fort,

Maryland Historical Society Library
201 W Monument St Baltimore, MD
Reproduction Permission Granted

till he hath made two or more viſits on board; and if it ſhall appear to ſuch health officer, that a further detention be neceſſary, he ſhall oblige the ſame to perform a quarantine, not exceeding twenty days, and in all ſuch caſes the health officer ſhall give a certificate to the captain or maſter of the veſſel, ſigned with his name, expreſſing the number of days the ſaid veſſel is to ride quarantine, and at or before the end of each quarantine, the health officer is hereby enjoined to make a ſecond viſit to the ſaid veſſel; and ſhould it appear to him that a further quarantine is neceſſary, he is hereby authoriſed to enjoin the ſame, for any number of days not exceeding ten.

To perform quarantine, &c.

Health officer to make a ſecond viſit, &c.

A further quarantine if neceſſary &c.

Be it enacted and ordained, That if the maſter or other perſon, having charge of any veſſel bound to the port of Baltimore, having on board any perſon or perſons diſordered with any contagious diſeaſe, or coming from any ſickly port or place, without a clean bill of health, ſhall bring his veſſel, or ſuffer or permit the ſame to be brought nearer to the port of Baltimore than Hawkin's point, or ſhall land, or bring on ſhore, or cauſe, or ſuffer to be landed or brought on ſhore, any ſuch infected perſons, or any part or parcel of their goods or effects, or any other goods, until he has obtained a licence or permit ſo to do, from the health officer or his aſſiſtant, ſuch maſter or any other perſon, having charge of ſuch veſſel, ſhall forfeit and pay for every ſuch offence, the ſum of one thouſand dollars, for the uſe of the city.

Veſſels having on board any infected perſons not to come nearer the city than Hawkins's Point, &c.

No infected perſon, &c. to be landed without licence.

Penalty on offenders.

B*e it enacted and ordained*, That if any maſter or other perſon, having command of any

Penalty on perſons concealing infected perſons, &c.

veſſel, at the time of enquiry by the aforeſaid health officer or his aſſiſtant, ſhall have on board any perſon infected as aforeſaid, and ſhall knowingly conceal the ſame, or ſhall not make a juſt and true diſcovery to the ſaid health officer, or his aſſiſtant, of the ſickly and diſordered ſtate of all and every perſon on board, from the time the ſaid veſſel departed from the port or place from whence ſhe laſt ſailed, to the time of ſaid enquiry, and of all other particulars neceſſary for the ſaid health officer, or his aſſiſtant, to know, reſpecting the premiſes, ſuch maſter, or other perſon having command of ſuch veſſel, ſhall forfeit and pay for every ſuch offence, the ſum of three hundred dollars, for the uſe of the city.

No perſon to go on board any veſſel while performing quarantine.

Be it enacted and ordained, That during the detention of any veſſel, at or below the fort, by the health officer, or during the time of her being ordered to perform quarantine by him, it ſhall not be lawful for any perſon on board ſuch veſſel to come on ſhore and have communication with any perſon, or for any perſon to go on board ſuch veſſel, without the permiſſion of the health officer, in writing; every perſon offending againſt the proviſions of this clauſe, ſhall forfeit and pay the ſum of twenty dollars, to be applied for the uſe of the city.

Penalty.

Penalty on pilots conducting veſſels above Hawkins's point, hav-

And be it enacted and ordained, That if any pilot ſhall conduct any veſſel above Hawkins's Point, having on board above thirty perſons, being paſſengers or ſervants, and it is hereby declared to be the duty of each pilot to make due enquiry thereof,) ſuch pilot ſhall forfeit and pay one hundred dollars for the uſe of the city: and if any pilot ſhall have knowledge that there is on board any veſſel that he undertakes to pilot, any perſons diſtempered with the plague, or any malignant contagious diſeaſe and it is hereby declared to be his duty to make due enquiry thereof; and ſhall pilot ſuch veſſel above Hawkins's Point, he ſhall forfeit one hundred dollars, for the uſe of the city; and ſuch pilot ſhall be diſqualified to act as pilot for one year; and if any pilot ſhall have knowledge that there is on board any veſſel that he undertakes to pilot, any perſon diſtempered as aforeſaid, and it is declared to be his duty to make due enquiry thereof, and ſhall conceal the ſame from the aforeſaid health officer, or his aſſiſtant, ſuch pilot ſhall forfeit one hundred dollars, for the uſe of the city; and ſuch pilot ſhall be diſqualified to act as pilot for one year.

ing on board above thirty perſons paſſengers or ſervants.

Pilot diſqualified.

Penalty on pilots concealing infected perſons from the health officer.

Pilot diſqualified

Be it enacted and ordained, That the commiſſioners of health ſhall watch over the health of the city, and aid and aſſiſt the health officer in the diſcharge of his duty, and carry into effect the proviſions of this ordinance, and ſhall meet at the court-houſe, or ſome other place in the ſaid city, on the firſt Monday in the months of May, June, July, Auguſt, September, October, and November, or as often as occaſion may require, for the purpoſes aforeſaid, collect and receive every poſſible information of the healthineſs of the ſame; and the health officer is hereby required then and there to meet them, with ſuch evidences of facts, relative to his appointment, as may have come to his knowledge; and the ſaid commiſſioners of health, ſhall give all neceſſary aſſiſtance to the health officer, in the execution of his duty, cauſe all perſons actually laboring

Commiſſioners to watch over the health of the city.

To meet at the court-houſe to receive information.

Health officer to meet commiſſioners, &c.

Commiſſioners to aſſiſt health officer.

PRIMARY SOURCE # 3
Encountering Maryland's Past, Volume 1: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

Infected perſons to be removed to the hoſpital.

under infectious diſeaſes, (and not otherwiſe provided for) to be removed to the hoſpital on Hawkins's Point, or elſewhere, diſtant from the city at leaſt three miles; and provide for the infected ſuch meats, drinks, bedding, and cloathing as may be abſolutely neceſſary, or ordered by the health officer; and with the advice of the health officer, or other practiſing phyſician or phyſicians, whom they may conſult, may take ſuch further meaſures in diſcharging the truſt confided to them, as may appear reaſonable and proper.

Damaged hides, &c. not to be landed, &c.

Be it enacted and ordained, That the health officer, or the commiſſioners of health, ſhall be and they are hereby authoriſed to prevent the landing of any damaged hides, damaged coffee, or other damaged goods, from on board any veſſel whatever, on any wharf in the city, or within three miles thereof, which in their judgment would endanger the health of the inhabitants. And every perſon wittingly and knowingly landing any of the ſame articles, contrary ot the proviſion aforeſaid, ſhall forfeit and pay for every ſuch offence, one hundred dollars, half to the informer, and the other half for the uſe of the city.

Commiſſioners to employ a clerk.

Be it enacted and ordained, That the commiſſioners of health may appoint a clerk, and allow him a reaſonable compenſation for his ſervices, who ſhall keep fair minutes of their proceedings, and all neceſſary expences incurred by them in the diſcharge of the duties herein required, which ſhall be defrayed by the corporation.

Approved, April 7th, 1797.

201 W Monument St Baltimore MD

An ORDINANCE to regulate the riding and driving of horſes and carriages through the city of Baltimore.

Preamble.

WHEREAS frequent accidents have happened by the careleſſneſs or perverſeneſs of the drivers of carriages and horſes in and through the ſtreets, lanes, and alleys of the city of Baltimore: For remedy and prevention thereof—

Drivers of carriages, &c. to take the right hand ſide of the ſtreet, &c.

Be it enacted and ordained, by the mayor and city council of Baltimore, That from and after the firſt day of May next, all and every the driver and drivers of all coaches, chariots, caravans, waggons, phætons, chaiſes, chairs, ſolos, ſleighs, carts, drays and other carriages of burthen and pleaſure, driving and paſſing in and through the ſtreets, lanes, or alleys of the city of Baltimore, when there is room ſufficient for two to paſs, ſhall keep on that ſide of the ſtreet, lane, or alley, on his or their right hands reſpectively, in the paſſing direction.

Penalty on perſons driving in the middle of the ſtreet &c.

And be it enacted and ordained, That if any driver of any ſuch carriage ſhall drive his ſaid carriage in the middle of the ſtreet, or on the ſide of the way on his left hand, ſo as to prevent or obſtruct an other carriage from paſſing as aforeſaid, every driver ſo offending, ſhall forfeit and pay for every ſuch offence, the ſum of one dollar, for the uſe of the city.

No carriage to enter

And be it enacted and ordained, That whenever any ſuch carriage as aforeſaid, ſhall have entered any ſtreet, lane, or alley, in the city, ENCOUNTERING MARYLAND'S PAST Volume I: Science, Technology, and Invention in History CONTEXT PAGE

PRIMARY SOURCE # 4 (Ad/Broadside)

"Stage Route from Baltimore to Pittsburg and Wheeling [28 March 1814]." *Baltimore Patriot.* Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Stockton and Stokes. "United States Mail Coach to Philadelphia [27 December 1821]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

James Williamson, & Co. "Georgetown, Washington and Annapolis Mail Stage [31 December 1825]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Hutchinson and Weart. "Travelling to Pittsburg [c. 1830]." Newspaper advertisement. Hayden Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT? Newspaper advertisements for stage routes and mail coaches

WHO?	Stockton and Stokes, James Williamson, & Co, Hutchinson and Weart, and other companies
WHEN?	1814 - c. 1830
WHERE?	Points of departure included Baltimore, Annapolis, and Washington, D.C. Points of arrival included Frederick, Hagerstown, Cumberland, Centerville, Upper Marlboro, and Queen Anne, Maryland; York, Harrisburg, Columbia, and Pittsburgh, Pennsylvania; Wheeling, West Virginia; New York; and Zanesville, Columbus, and Cincinnati, Ohio.
WHY?	To entice passengers by lauding the merits of the respective stage lines

Description of the Source

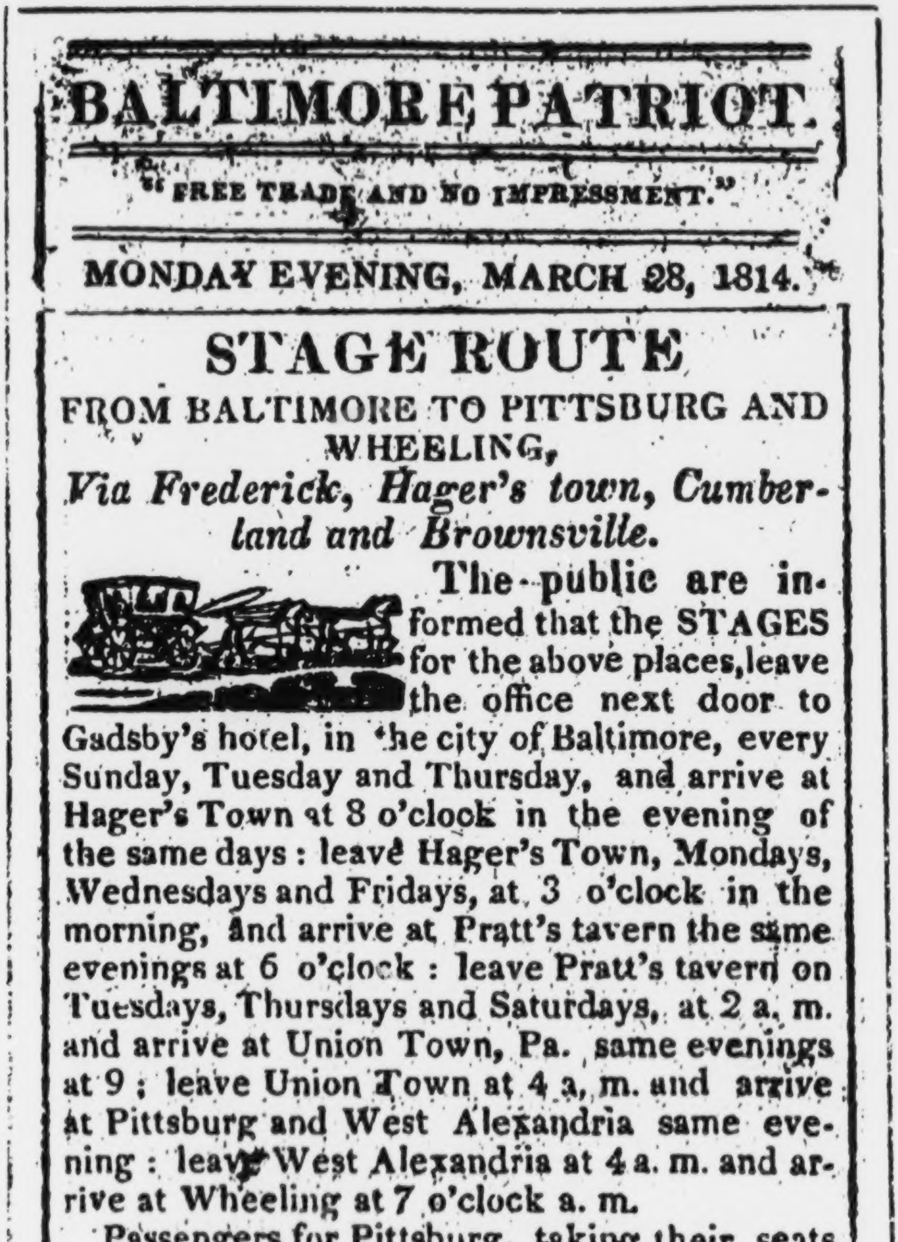
From a collection of clippings from early Baltimore newspapers, these ads are designed to persuade people to travel on particular stage coach lines. The ads include information on ticket office locations, fare prices, arrival and departure times and places, length of the journey, and connections to other transportation lines.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 152-156, 201. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- What was the role of government in developing a national road system?
- Investigate the history of road-building technology.
- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the social and economic impact of transportation changes on everyday life.



BALTIMORE PATRIOT.

"FREE TRADE AND NO IMPRESSMENT."

MONDAY EVENING, MARCH 28, 1814.

STAGE ROUTE

FROM BALTIMORE TO PITTSBURG AND WHEELING,

Via Frederick, Hager's town, Cumberland and Brownsville.

The public are informed that the STAGES for the above places, leave the office next door to Gadsby's hotel, in the city of Baltimore, every Sunday, Tuesday and Thursday, and arrive at Hager's Town at 8 o'clock in the evening of the same days: leave Hager's Town, Mondays, Wednesdays and Fridays, at 3 o'clock in the morning, and arrive at Pratt's tavern the same evenings at 6 o'clock: leave Pratt's tavern on Tuesdays, Thursdays and Saturdays, at 2 a. m. and arrive at Union Town, Pa. same evenings at 9; leave Union Town at 4 a. m. and arrive at Pittsburg and West Alexandria same evening: leave West Alexandria at 4 a. m. and arrive at Wheeling at 7 o'clock a. m.

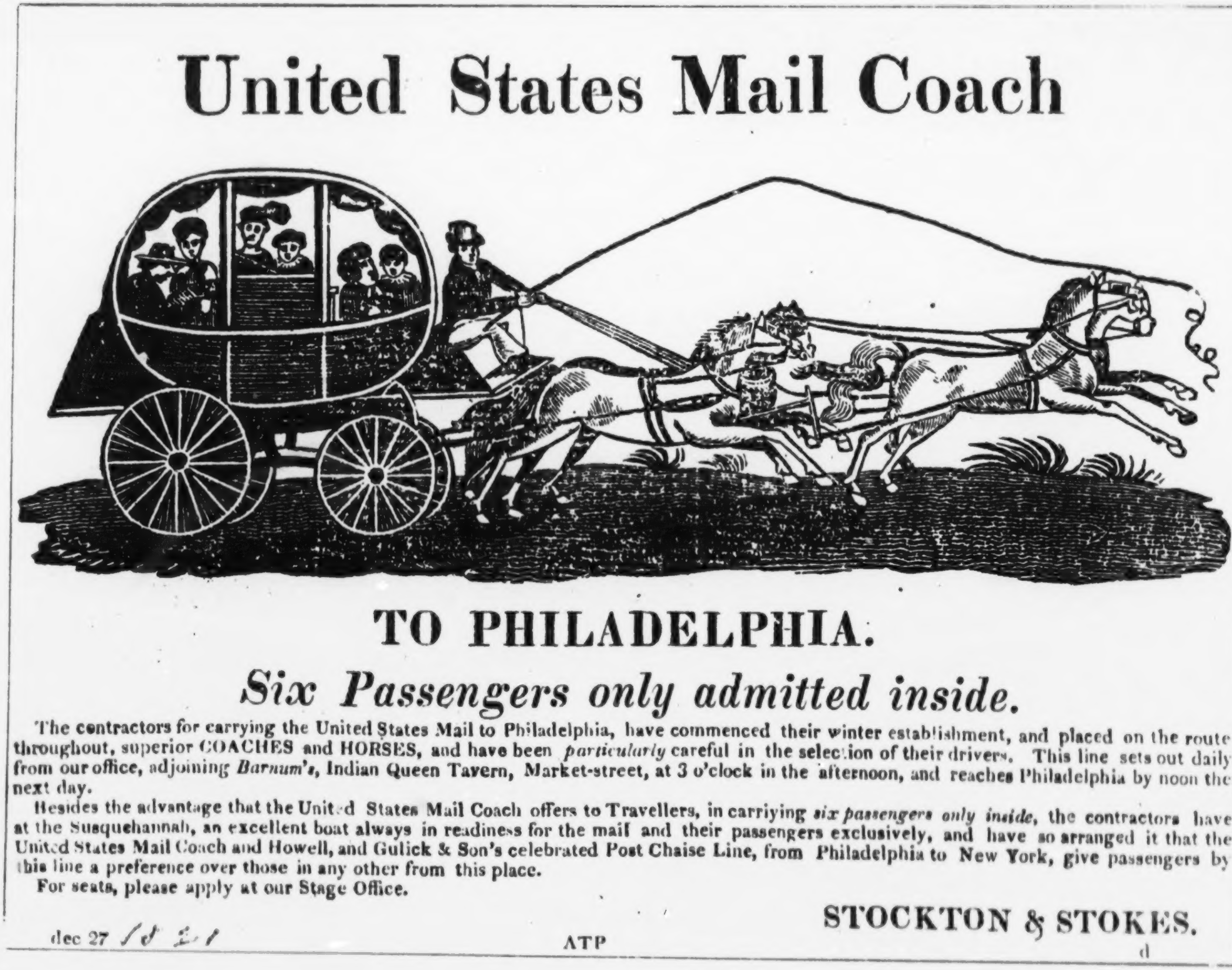
Passengers for Pittsburg, taking their seats in this line, will be met by Col. Johnston's line at Washington, Pa. and arrive at Pittsburg in 4 days from Baltimore. jan 9—eo

PRIMARY SOURCE # 4
Encountering Maryland's Past, Volume I: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

PP

Reproduction Permission Granted
for Educational Purposes Only

Maryland Historical Society Library
201 W. Monument St. Baltimore, MD 21201



United States Mail Coach

TO PHILADELPHIA.

Six Passengers only admitted inside.

The contractors for carrying the United States Mail to Philadelphia, have commenced their winter establishment, and placed on the route throughout, superior COACHES and HORSES, and have been *particularly* careful in the selection of their drivers. This line sets out daily from our office, adjoining *Barnum's*, Indian Queen Tavern, Market-street, at 3 o'clock in the afternoon, and reaches Philadelphia by noon the next day.

Besides the advantage that the United States Mail Coach offers to Travellers, in carriying *six passengers only inside*, the contractors have at the Susquehannah, an excellent boat always in readiness for the mail and their passengers exclusively, and have so arranged it that the United States Mail Coach and Howell, and Gulick & Son's celebrated Post Chaise Line, from Philadelphia to New York, give passengers by this line a preference over those in any other from this place.

For seats, please apply at our Stage Office.

STOCKTON & STOKES.

dec 27 1821 ATP d

Georgetown, Washington and

ANNAPOLIS

Mail Stage.

The proprietors respectfully inform the public, that they have procured new Post Coaches, and commenced running the route with three sets of horses, instead of two sets as heretofore, by which the stage will arrive in three hours less time than formerly.

The stage will start from the office, next door to the Union Tavern in Georgetown, at six, and from the office next door to Brown's Hotel in Washington city, at half past six o'clock, A. M., on Mondays Wednesdays and Fridays—Breakfast at Centerville, and passing through the towns of Upper Marlborough and Queen Anne, arrive at Annapolis to dinner at three o'clock. Returning leave Williamson's Hotel in Annapolis at 6 o'clock, on Tuesdays, Thursdays and Saturdays—Breakfast at Queen Anne, and arrive in Washington to dinner at 3 o'clock.

In announcing this arrangement, the proprietors assure the public it is their determination to keep comfortable stages, good horses, skilful, sober and attentive drivers, and to make every possible exertion to promote the comfort and convenience of passengers, and to render this line worthy of their patronage and support.

Fare through, 4 dollars. All Baggage at the risk of the owner thereof.

JAMES WILLIAMSON, & Co.

Jan. 12. tf

THE COMMITTEE OF CLAIMS

Will sit in the Committee Room in the State House, every day during the present session, from 10 o'clock A. M, until 4 o'clock P. M. to receive and allow all just claims that may be exhibited against the State.

Jeremiah M. Baden, clerk.

Decr. 31st 1825.

TRAVELLING TO PITTSBURG,

AND

Travelling to York, Harrisburg & Columbia to Philadelphia.

A Line of Coaches leaves Beltzhoover's Fountain Inn, in Light street, every morning, for Pittsburg,—and a Line from the same place, also, every morning, for York, Harrisburg and Columbia, to Philadelphia.

OPPOSITION.

GOOD INTENT LINE,

DAILY ON NATIONAL ROAD, FOR

Wheeling, Pittsburg, Zanesville, Columbus

AND CINCINNATI, OHIO.

Through to Wheeling and Pittsburg, in *two and a half Days.*

☞ For Seats, apply at the General opposition Stage Office, No. 2 South Calvert street, and at the Rail Road Ticket Office, corner of Charles and Camden streets.

HUTCHINSON & WEART, *Agents.*

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

PP

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I:

PRIMARY SOURCE # 5 (Ad/Broadside)

Hollins, William. "Chesapeake and Ohio Canal. No. 3. [4 July 1825]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	One in a series of broadsides regarding the construction of the C & O Canal
WHO?	Written by William Hollins
WHEN?	1825
WHERE?	Printed in Baltimore
WHY?	To garner support for the building of a canal along the Potomac River

Description of the Source

In this broadside, William Hollins makes a case for building a canal along the Potomac River rather than the Susquehanna. He advocates the use of the National Road as a portage while the middle section of the canal is under construction, it being the more difficult part to build. Describing the potential links between the canal and other transportation networks (stage, steamboats, and roads), he points out the potential economic, political, and social benefits of a canal to Maryland and the nation. Finally, he urges the broadside's readers to get out and vote for candidates who support the building of the canal.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.156-158; 186; 202-203. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the relationship between the failure of canals and the success of railroads.?
- Investigate how new technologies have been promoted and sold to the public.
- Investigate the social and economic impact of transportation change on everyday life.
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.

CHESAPEAKE
AND
OHIO CANAL.
No. 3.

TO THE PEOPLE OF BALTIMORE.

Nothing ought to interest us so much at the present time; nothing so vitally concerns our welfare as a community; nothing can tend so much to strengthen the bonds of our Union; nothing which can be devised, will be the means of affording such health and comfort and consolation to our inhabitants, as the prospect of this great work being undertaken, and when undertaken, that it will, in all probability, be soon accomplished.

To prove to you that it can be put into operation in a very short period of time, is the object of my now taking up the pen to address you.

My own opinion is, it can be completed so as to pass Produce from the western Country, in the space of three years (or at furthest in five years) from the time of the passage of the law, required of the Legislature of Pennsylvania; making use of the national road as a portage from Cumberland to Smythfield, where it intersects the River Youghagany about seven miles to the north of the Point where Bear Creek unites with that River: The distance from Cumberland to Smythfield by the national Road, on which there is no toll, is about thirty-five miles, as may be seen by the maps of surveys copied at the expense of my brother-in-law Major Isaac M'Kim, from the original drawings in the Topographical Bureau at Washington, for the information of his constituents.

The national Road, as far as Smythfield, on the Youghagany, runs nearly in a direct line from Cumberland to Pittsburg; and by using it as a portage until the middle section of the Canal be completed, it would be the means of avoiding the worst part of the whole route, over the Alleghany Mountains, and reduce the amount of lockage to 1,071¾ feet from tide water to Pittsburg, as I am now about to demonstrate.

TOTAL LENGTH OF CANAL.

From tide water to Cumberland (agreeably to the report of the Board of U. S. Engineers.)	182	Miles
From Cumberland to Savage River	27¼	
From mouth of Savage River to Bear Creek by the Deep Creek route,	41	
From mouth of Bear Creek to Smythfield, where the National road intersects, say	7	
From Smythfield to Pittsburg,	93	
	350¼	Miles

TOTAL RISE.

From tide water to Cumberland,	537	feet
From Cumberland to mouth of Savage River,	327¼	
From mouth of Savage River to the Base mark, on the Deep Creek summit level,	1,432	
	2,296¼	feet

TOTAL DESCENT.

From the Base mark to the mouth of Bear Creek,	956	feet
From thence to the Ohio, at Pittsburg,	584¼	
	1,540¼	feet

Total Lockage for rise and descent,		3,837	feet
Deduct, the Lockage from Cumberland to Smythfield, where the National Road intersects the western section of the Canal, say			
From Cumberland to Savage River,	327¼		
From mouth of Savage River to summit level at Base mark,	1432		
From the Base mark to the mouth of Bear Creek,	956		
From the mouth of Bear Creek to Smythfield where the National Road intersects the line of Canal say,	50	2765¼	
Total Lockage for rise and descent, making use of the National road for a portage,		1,071¾	feet

Very little more than one fourth of the whole Lockage. The expense of construction of the eastern and western section of the Canal will probably not exceed one half of the whole route.

Now, I will ascertain how much the line of Canal will be shortened by making use of the National Road as a Portage, whilst the most difficult part of the route is in progress; and the time which will be saved by the use of locomotive vehicles, or light wagons, with relays of horses, which would cross the Portage in from seven to twelve hours.

From tide water to Cumberland,	182	miles
From Cumberland by the National Road to Smythfield, say	35	
From Smythfield to Pittsburg,	93	
	310	miles
Saving in distance,	40¼	miles
Saving in Lockage,	2,765¼	feet

To pass 277 Locks, of 10 feet lift each, would require (taking the average, which I did, from one end of the Erie Canal to the other by the watch; meeting with some prepared to receive the boat, and others which were not in readiness) 6½ minutes to each Lock, or for the whole

	30	hours
To which add for travelling the route,	30	
	60	
From this deduct the time required to travel the road from Cumberland to Smythfield with a light wagon, loading and unloading,	12	
Saving of time by using the road,	48	hours

Packet Boats, with passengers, would be under the necessity, at all events, of stopping at the intersection of the national Road with the western section of the Canal at Smythfield, and at Cumberland on the eastern section; as they do at Schenectady, where they take the stage for Albany, a distance of 16 miles, (nearly half the distance it is between Cumberland and Smythfield,) to avoid the delay attending the passage of the numerous Locks on the Mohawk, between Schenectady and Albany.

There is Steam Boat navigation from the north part of Alabama to Wheeling, and to Pittsburg, by the River Tennessee:

That River, and the Ohio, embrace Tennessee, Kentucky, Illinois, Indiana, Ohio, and part of Virginia and Pennsylvania.

The Missouri and Mississipi Rivers unite with the Ohio on the western borders of Kentucky.

The Inhabitants of the Countries, through which these kings of Rivers flow, all look to the Atlantic States, even in time of Peace, for a market for a large share of their rich products: What would be the case in time of War, when the port of New Orleans might be blockaded or besieged?

Having a Canal, they can always rely on finding a market and obtaining their supplies from the Atlantic States: The Atlantic States can always depend on a supply of the raw material, which would be manufactured and returned in time of War. In Peace it can be manufactured and shipped abroad.

Oh, what a desirable event! How every member in this wide spread land should exert himself to bring about so desirable a state of things! We should have our whole minds bent on its accomplishment! We should bury all sectional interests, all private views! There is abundance for us all to share! The benefits will not be limited to a single City, to a single State, to a few States; but all, all will participate in, and feel the happy effects of, this water communication to the Western Country! The interests on the Susquehanna will be improved by an increase of trade on the Potomac; the same as the interests on the Potomac, and every other section of the Country would be benefitted by an Improvement on the Susquehanna:—The market will be increased, and the demand for every article of Produce will be multiplied, in proportion to the necessary increase of Capital.

Let us reflect then and ponder these things! They are all truths; and, to us, interesting truths!

The Susquehanna route is about 100 miles longer than the Potomac route, and it is *utterly impracticable*, short of a continous Canal, as I have attempted to shew by Essay, No. 2; and even then, it is very doubtful if a sufficiency of water can be had at the summit level, where the Allegany was found by the Pennsylvania Commissioners to be 2,585 feet high at the spot where the profile was taken, and that it could not be passed with a shorter tunnel than 4 miles in length.—The small streams too, to the west of the mountain and emptying into the Allegany River, generally dry up in Summer.

The Potomac route is the only one which offers any thing like a probability of being accomplished. Our state has appointed Commissioners to receive subscriptions for Stock. Virginia and the District have done the same. The Engineers are completing their labours. Let us then apply to our Legislature to have a survey made from Baltimore to the Potomac, and let our Candidates for the Assembly and City Council, be required to state, *unequivocally*, if they intend to promote this great work of Internal Improvement, before we give to any of them our suffrages at the approaching Elections.

The question is now, are we to have a Canal or no Canal?

Who is there among us, who is not a friend to INTERNAL IMPROVEMENT?

I have been at great pains and considerable expense in informing myself thoroughly on this subject. My time and thoughts have been wholly occupied on it, for the last eighteen months. I have seen and conversed with thousands of people who live and trade on the Potomac and Susquehanna, noting down every information obtained, and every observation made.

I have not done all this for Electioneering purposes: It has been done solely and purely for the benefit of the People of this State, where all my interests and affections are centered —I am not wantonly sporting with the community, for I stand pledged, and, on all occasions shall be in readiness, to PROVE all the facts which have been stated by me on this subject.

WILLIAM HOLLINS.

Baltimore July 4, 1825.

EXTRACT

From the Chesapeake and Ohio Law, passed by the State of Virginia and Maryland last session—55 to 12 in the House of Delegates and 16 to 4 in the Senate of Maryland:

"*Sec.* 20.—That the right to the waters of the River Potomac, for the purpose of any lateral Canal or Canals, which the State of Virginia or Maryland, may authorize to be made in connexion with the said Canal, is reserved to the said States respectively; that a similar right is reserved to the State of Pennsylvania in relation to the rivers and streams within the territory of that State, the waters of which may be used in supplying the western section of the said Canal; that the government of the United States shall retain the power to extend the said Canal in or through the District of Columbia, on either or both sides of the River Potomac: *Provided*, That before this act shall take effect, the Congress of the United States shall authorize the States of Virginia and Maryland, or either of them to take and continue a Canal from any point of the above named Canal or the termination thereof, through the District of Columbia, or any part thereof to the territory of the said States, or either of them, in any direction they may deem proper, upon the same terms and conditions, and with all the rights, privileges and powers of every kind whatsoever, that the Company incorporated by this Act, have to make the Chesapeak and Ohio Canal."

The remainder of this section is provided for by the Act of Congress which will be found in my pamphlet No. 2 on this subject, for sale at Edling Mickle's, Market street and Cushing & Jewett's, Howard street, Baltimore.

Wm. Wooddy, Printer, No. 2, South Calvert street.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 6 (Ad/Broadside)

Jefferson. "To Stephen Watters, Esq. [1826]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	A broadside that issues a public complaint against candidate Stephen Watters for changing his position on whether canals should be built along the Potomac and Susquehanna
WHO?	Written by Jefferson to Stephen Watters, Esq.
WHEN?	1826
WHERE?	Maryland
WHY?	To help Mr. Sewell win re-election by exposing his opponent Stephen Watters' change in position on canals and public financing of their construction

Description of the Source

In this broadside, an individual identified only as "Jefferson" angrily denounces Stephen Watters for changing sides on an issue in order to win an election to state government. He describes how Watters previously joined in sending a letter to his delegate in Annapolis - Mr. Sewell - to instruct him to "use his utmost exertions to promote" the canal system. Watters is now running against Sewell on the canal issue, characterizing the canal project as "wild and chimerical" and a waste of taxpayer money. In a side note, Jefferson publicly chastises Dr. John Archer for his family's dominance of political power in the county.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.152-158; 202-203. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the relationship between the failure of canals and the success of railroads.
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- Investigate the social and economic impact of transportation change on everyday life.
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.

To Stephen Watters, Esq.

SIR,—Do you remember that you joined in sending to Mr. Sewell while he was your delegate, written instructions to "use his utmost exertions to promote" the canal system, in which you tell Mr. Sewell that the making of these canals would be highly beneficial to the state, that the Susquehanna canal is Practicable and could be made by the means of the State, and in short you set forth the great advantages in various respects that would flow from the canals as well the Potomac and Ohio as the Susquehanna, and that you considered the western people as your brethren and would unite with them in so useful a work (meaning the Potomac Canal) with a zeal proportioned to its importance? In fact your whole address breathes nothing but enthusiasm in favour of the Potomac and Susquehanna Canals. You seemed to overlook in the fervour of your Canal zeal, the expense of making them, and thought the means of the state fully adequate. Mr. Sewell received this writing from you, and certainly as he was your delegate he felt inclined to obey the instructions so received from his constituents, and in compliance therewith did advocate the Susquehanna canal. But he did not expect that you and those men who had as his constituents met together and drawn up written instructions for him to vote for the canals would turn round and oppose his election for doing so. Let me ask you upon what principle can you justify the strange inconsistency of writing to Mr. Sewell, and urging your reasons on him to support the Canal, and then shifting about and declaring the project "wild and chimerical." and opposing Mr. Sewell for voting for it; this you do in the very teeth of your address to Mr. Sewell.

If the Canal system is a bad one, you are as deep in it as Mr. Sewell; if it is to bring ruinous taxes upon us, are you not one of the men who urged Mr. Sewell to vote for it? You are, sir, one of the very men who sent instructions to Mr. Sewell at Annapolis, and now instead of standing by your instructions like a man, you meanly change sides and join in the cry of Taxes, Taxes, Taxes.—No Canals, no Canals, against Mr. Sewell. When you wrote to Mr. Sewell, pressing him to advocate the Canals, did you intend to deceive him by deserting the Canal system, and him as soon as he should vote for it? What an admirable politician you are; you advocate the Canals until you find it convenient to oppose them; then you desert the friend whom you directed to support them, and use every means to injure his election and build your own upon his ruins. Will such inconsistency or duplicity be tolerated by the people of Harford? Will such ingratitude be sanctioned, as that of pressing and persuading a man to do an act, and then seeking his ruin and your own exaltation for doing so? Of what I say, a number of your neighbours can bear witness, besides, the original writing sent to Mr. Sewell while he was at Annapolis, is now in his possession ready to use in judgment against you; and in addition to that, all I have here said is proved by the resolutions drawn up by you and four other persons, and published in the Bond of Union of the 15th January, 1824. While you were a private man you advocated these Canals by writing in their favour; and has the fact of your being a candidate so wonderfully converted you? If so, you are a new convert and are not to be trusted for fear you may backslide as soon as you are elected.

One more word in parting; you are a member of the Levy Court, and as such I understand have always obsequiously obeyed Mr. Hays' wishes about these roads and bridges, &c. which have cost the County so much money. You have said you wanted rotation in office, but you still seek two at a time for yourself, although you already have one fully commensurate with your talents, and one, too, in which you might efficiently serve the Junto in making supervisors, constables, &c.

TO DR. JOHN ARCHER,

SIR,—A passing word to you. From the number of offices held by your family and connexions, common modesty ought to have taught you to seek no more. From generation to generation, your family has ruled us, until the name of Archer has become a Talisman against defeat in elections. So long has your race been favoured, that, judging from the stern, cold, stiff, and formal indifference with which you treat the people, one would suppose you think it a favour conferred upon us to be permitted to vote for you. That you think yourselves the lords of the County, and that fortune has strapped you on our backs like pack saddles, and fate decreed that we should carry you.

To show you how much of the public money your family and connexions now receive every year, read the following catalogue.

The Hon. S. Archer,	$2200
The Hon. Robt. Archer,	500
The Rev. R. H. Davis, President of the Belle-Air Academy, and brother-in-law of Judge Archer,	500
Mr. McKenney, Postmaster, Mail Carrier, &c. &c. a connexion of the same Judge, upwards of	800
Thomas A. Hays, Esq. another brother-in-law to the Judge, is Levy Court Justice, Treasurer of the Levy Court, Road Commissioner, Road maker, Bridge builder, &c. by which he fingers not less every year than the sum of	500

Making an aggregate sum of $4500 a year, which goes into the pocket of the Archer family and its connexions. Still, Sir, you say you are in favour of rotation in office, by which you mean, I suppose, that the offices should rotate in your family, thus from the Honourable Stevenson to the Honourable Robert, from the Honourable Robert to the Honourable John, from the Honourable John to the Reverend Reuben, from the Reverend Reuben to the Honourable Thomas, and so on; but never, in its widest range, passing out of the limits of your family connexions. Now, Sir, do you not think your family has its share of officers, for besides those I have mentioned, by its influence it manages to control nearly all the public bodies of the County; and as for the late Committee, it was so perfectly under the yoke of your family Junto, that it has been emphatically called the Hays and Archer Committee. This poor Committee could not get along at all, nor wag a step without an Archer; they first appointed the Judge, but he deemed it expedient to decline, and then you were appointed, so that it seems they must have one of the family. If you are elected, I suppose some of your relations, a Hays or an Archer goes into the Senate, and then the Academy is protected for five more years for the benefit of the Rev. R. H. Davis. But in addition to your family right of being elected, you have all the claims arising from the active part you took in the late conspiracy of Doctors to force people to pay their bills, right or wrong, high or low. The meeting of the Doctors was called by you, and the Bill business then fixed; and you are entitled to all the credit of it by being the mover thereof.

JEFFERSON.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I:

PRIMARY SOURCE # 7 (Document)

Meineke, C. "The Railroad, A Characteristic Divertimento for the Piano Forte [23 July 1828]." Published by John Cole, Baltimore. Cover of sheet music. Hambleton Collection, H168. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Cover of sheet music for the song "The Rail Road"
WHO?	Composed by C. Meineke; published by John Cole
WHEN?	July 23, 1828
WHERE?	Baltimore
WHY?	Written to commemorate the founding of the B & O Railroad

Description of the Source

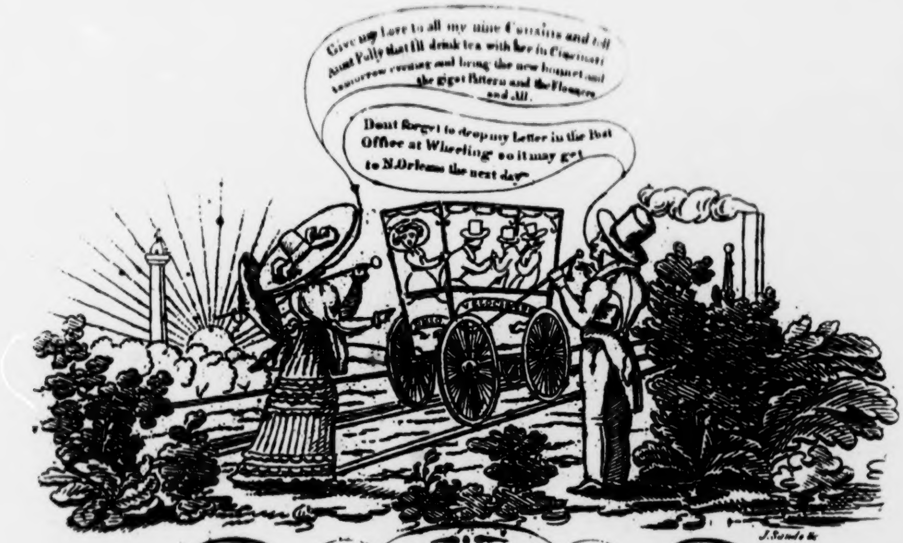
This sheet music celebrates the benefits of the B & O Railroad The "cartoon" on the cover of this sheet music provides insights into the social, economic, and cultural changes caused by the emergence of rail technology.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 186; 203-206. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- Investigate the social and economic impact of transportation change on everyday life.
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- How does technology impact the development of popular entertainment?
- Investigate the relationship between communication and transportation.


Give my Love to all my nine Cousins and tell Aunt Polly that I'll drink tea with her in Cincinnati tomorrow evening and bring the new bonnet and the gigot Pattern and the Flounces and All.
Dont forget to drop my Letter in the Post Office at Wheeling so it may get to N.Orleans the next day.
J. Sands sc

THE
RAIL ROAD,
A Characteristic Divertimento for the
Piano Forte,
in which is introduced, a variety of
National and Popular Airs,
composed by
C. MEINEKE.

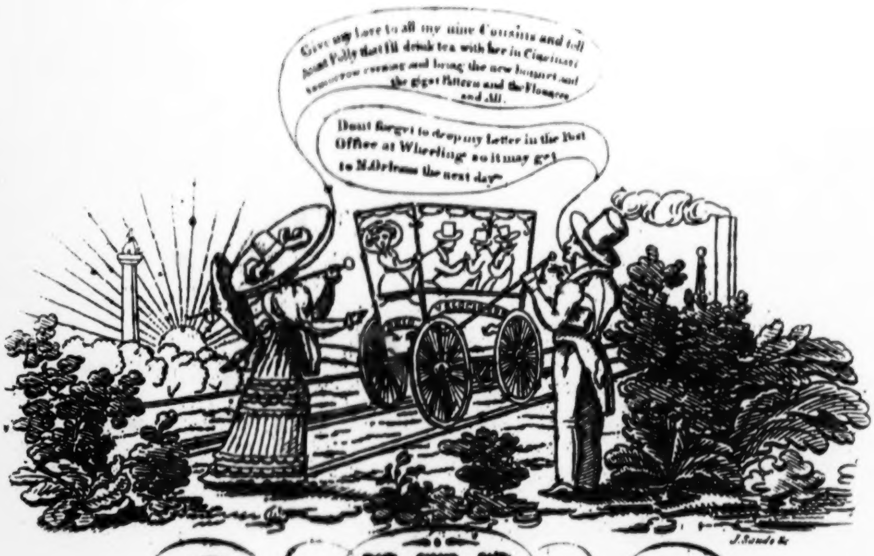
Baltimore,
Published by John Cole.
Price 25 Cents

[illegible] Act of Congreſs July 23d 1828 [illegible]

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

PP

Reproduction Permission Granted
for Educational Purposes Only


Give my Love to all my nine Cousins and tell Aunt Polly that I'll drink tea with her in Cincinnati tomorrow evening and bring the new bonnet and the gigot Pattern and the Flounces and All.
Dont forget to drop my letter in the Post Office at Wheeling so it may get to N.Orleans the next day.
J. Sands Sc

THE
RAIL ROAD,
A Characteristic Divertimento for the
Piano Forte,
in which is introduced, a variety of
National and Popular Airs,
composed by
C. MEINEKE.

Baltimore,
Published by John Cole.
Price 25 Cents

[illegible] Act of Congreſs July 29th 1828 [illegible]

Maryland Historical Society Library
201 W Monument St., Baltimore, MD 21201

PP

Reproduction Permission Granted
for Educational Purposes Only

PRIMARY SOURCE # 8 (Ad/Broadside)

Donaldson, W., Wagenseller, J., Hepburn, Jas., Herr, J. and Herr, A.H.; Wilson and Herr, John Kettlewell and Co., G.R. Vickers and Co., and Symington, Thos. "To the Citizens of Baltimore [9 November 1840]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Broadside regarding a recently-chartered railroad
WHO?	Written by W. Donaldson and J. Wagenseller, Swatara and Good Spring Creek Rail Road Company; Endorsed by stock subscribers Jas. Hepburn, J. and A.H. Herr, Wilson and Herr, John Kettlewell and Co., G.R. Vickers and Co., and Thos. Symington.
WHEN?	November 9, 1840
WHERE?	Printed in Baltimore; Concerns a railroad to connect the Pine Grove district of Pennsylvania with the Union Canal
WHY?	To raise money through a stock subscription to build a railroad

Description of the Source

In this broadside, W. Donaldson and J. Wagenseller announce that the proprietors of the Pine Grove coal lands have obtained a charter from Pennsylvania to build a 10-mile railroad from the coal fields to the Union Canal. Creating a way to transport coal to the seaboard and the interior, the railroad will provide a link between the Union and Tidewater canals, the Pine Grove district, and Baltimore. Urging residents of these areas to purchase stock, the broadside describes how the project will benefit them with cheaper coal, revenue from tolls, new markets for Baltimore groceries and dry goods, and, in general, increased commerce for the region.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 251-252, 783. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the relationship between the failure of canals and the success of railroads.
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- Investigate the role of technology in the coal-mining industry through time.

Printed by Lucas & Deaver,—Baltimore.

TO THE CITIZENS of BALTIMORE.

The proprietors of Coal Lands in the Pine Grove district, bordering on the Union and Pennsylvania Canals, have succeeded in obtaining from the Legislature of Pennsylvania a charter to make A RAIL ROAD from the heart of their Coal field to the Union Canal. The length of the road will be about ten miles, passing in its course all the varities of superior Anthracite Coal, the veins here being a contiquation, south westwardly, of those at Pottsville, improving in quality as they proceed westwardly to the termination of the general field, which is in the vicinity of the proposed rail road.

This Coal district was, in a manner, shut out from a market, until the opening of the Tide Water Canal. About the time this work was commenced the proprietors of two or three of the Coal Veins nearest the Union Canal, made a temporary rail road from their Mines to the basin at Pine Grove; from whence, since the completion of the Tide Water Canal, they have sent a sample of their Coal from the Panther Head and Mammoth veins, to Baltimore. After the quality of the Coal became known, orders were sent thence to the Mines for more than the temporary railway and inefficient fixtures could accommodate. With the view to open the Coal field fairly to the sea board, and interior markets, a charter to make a road, (to which Supplements have been recently appended,) was applied for and obtained. The proprietors of Coal lands in Pine Grove will give all the aid they can afford, to make it an efficient and permanent road; and as the Tide Water Canal and the city of Baltimore. are to be equally benefitted by it, they confidently hope that their aid will be afforded (by their subscriptions for stock) to complete the work.

There are several rail roads made by chartered companies, extending from the Mines near Pottsville, to the head of the Schuylkill canal; these roads, notwithstanding that the coal trade is divided between them, are nearly all profitable concerns, generally paying from eight to ten per cent., and the shares selling at a handsome advance over the first cost. The projected rail road at Pine Grove will have advantages over those at Pottsville—its course will be through the only gap which commands a large portion of the field, and it cuts most of the veins of coal at nearly right angles. It will always be the main artery for the small lateral roads to pour their tonnage into. The charter for the road is liberal and perpetual, and the tolls authorised to be charged will yield a revenue that will abundantly remunerate the stockholders.

The importance of this small road to the trade of Baltimore, is greater than would at first sight appear. At present the trade of the Union Canal region is exclusively with Philadelphia, and will remain so, unless the Pine Grove region is opened by the proposed road; as soon as it is completed an immense amount of Coal will pass to tide, via the Tide Water Canal—the return boats will necessarily attract the return trade; when an extensive and rich country, bordering on the Union Canal, will draw all its supplies of groceries and dry goods from Baltimore—and the coal field itself, now almost a wilderness, will become the busy home of thousands.

The late discovery of manufacturing iron with Anthracite Coal has given a new value to the latter article, and will soon reduce the value of the former. From the report made to Congress in 1838, upon the subject of a National Foundry, we learn that within a circle of fifty miles around the city of Lancaster there are *one hundred and two* Furnaces and Rolling Mills for making iron; these, as soon as their arrangements are made to use the Anthracite, must look to the Pine Grove region for nearly all their coal, and when it requires seven tons of Coal to manufacture one ton of bar iron, what a vast amount will be consumed in that way.

By a reference to the map of the Coal region at Pine Grove, it will be seen that no road can come into competition with this one, and that every ton of coal that passes from a large portion of the district must pass over this road, and pay it from 12½ to 25 cents per ton. The rent paid for Mines at Pottsville will average 30 cents per ton, and there are upwards of *one hundred Mines* in operation there now; when the same number are worked at Pine Grove, the revenue of the rail road will equal one half all the revenue from all the Mines.

The distance from Pine Grove to Havre de Grace, is	113 miles.
Add the Rail-Road,	10 miles.
Whole distance,	123 miles.
The distance from Sunbury to tide, is	127 miles.
Add the length of their Rail-Road to the Shamokin Region,	20 miles.
Whole distance from the Shamokin Coal to tide,	147 miles.
The distance from Wilkes Barre to tide, is	192 miles:

giving the Pine Grove Region the advantage over the Shamokin Coal Field, of 24 miles, and over the Wyoming Coal Field, of 69 miles; and allowing one mile of Rail-Road to be equal in cost for transit, to three miles of canal, it will give the Pine Grove Coal an advantage in distance over the Shamokin, of 44 miles.

The Wyoming and Shamokin Regions, are now opened to tide, and yet we understand that a portion of the Coal for the use of the city of Baltimore, has to be brought from Philadelphia,—the Shamokin and Wyoming Regions not supplying all the kinds wanted. The distance from Pine Grove to Baltimore being the shortest, its Coal can be afforded at a less price when this road is completed.

W. DONALDSON,
J. WAGENSELLER.

Baltimore, *November 9th*, 1840.

We the subscribers, are acquainted with the President and Directors of the Swatara and Good Spring Creek Rail Road Company, and know them to be men of respectability and character. We wish them success in their undertaking, and will give it our liberal support.

JAS. HEPBURN,
J. & A. H. HERR,
WILSON & HERR,
JOHN KETTLEWELL & CO.
G. R. VICKERS & CO.
THOS. SYMINGTON.

Baltimore, *November 9th*, 1840.

Messrs. Donaldson and Wagenseller, having referred to me to state my views as to the utility of their Rail-Road to the trade of Baltimore, and of the probability of its being profitable to the stock-holders; I unhesitatingly say that I believe that *no road* of *equal extent*, could be made, that would effect the trade of Baltimore more advantageously,—and that its location, and dependencies, are such as must make the road a profitable investment.

With regard to the quality of the Pine Grove Coal, it has given general satisfaction, and *I believe it will stand No. 1 in any market.*

THOS. SYMINGTON.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 9 (Ad/Broadside)

Winans, Ross, and Winans, Thomas. "Circular [13 September 1858]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Broadside and sketch providing information on a new invention, the ocean steamer
WHO?	Written by Ross and Thomas Winans
WHEN?	September 13, 1858
WHERE?	Baltimore
WHY?	To advertise the advantages of a vessel they are developing that will be fully powered by steam

Description of the Source

In this broadside, Ross and Thomas Winans purport to answer the most frequently-asked questions about their new invention - an ocean steamer powered only by steam. They discuss its materials, dimensions, specifications for engines and boilers, freight capacity, and speed; and detail how getting rid of the sails will affect the vessel's design. Advantages of this steam-powered vehicle included safety, speed, access to ports, dependability, increased capacity, and cost.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.216-217, 252. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the introduction of steam power affect the port of Baltimore and Maryland?
- What were the effects of ocean steamers on American foreign policy?
- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the social and economic impact of transportation change on everyday life.
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- Investigate the history of ship-building technology.
- Investigate the life, works, and causes of 19th century millionaire Ross Winans.
- How has technology advanced through the development of new types of power?

CIRCULAR.

THE numerous applications for information in regard to the principles of construction and action of the OCEAN STEAMER that we are now engaged in building, and the advantages expected to be derived therefrom, have suggested the publication of the following statement as a general answer to the questions most frequently addressed to us.

It has been with a view to obtaining greater safety, dispatch, uniformity, and certainty of action, as well as economy of transportation by sea (taking shipwrecks and other casualties and risks into consideration), that we have devised and combined the elements exhibited in the vessel in question.

Experience has shown that steam power on board sea-going vessels, when used in aid of sails, ensures, to a great extent, dispatch, certainty of action, and uniformity in the time of their voyages. Now, we believe, that by discarding sails entirely, and all their necessary appendages, and building the vessel of iron, having reference to the use of steam alone, these most desirable ends may be even still more fully obtained.

The vessel we are now constructing has reference to these objects, and is for the purpose of experiment, to enable us to test the accuracy and practical value of our peculiar views. It has no keel, no cut-water, no blunt bow standing up above the water-line to receive blows from the heaving sea, no flat deck to hold, or bulwark to retain, the water, that a rough sea may cast upon the vessel; neither masts, spars nor rigging. The absence of sails not only renders the parts thus abandoned by us useless, but their abandonment in a vessel such as ours will, we believe, most materially promote safety, easy movement, or diminished strain of vessel in rough weather, will save dead, or non-paying weight, ensure simplicity and economy of construction, and will give greater speed in smooth water, less diminution of speed in rough water, as well as diminished resistance to moving power at all speeds, in all water, and result in shortening the average time of making sea voyages.

The length of the vessel we are building, is more than eleven times its breadth of beam, being 16 feet broad and 180 feet long. This whole length is made available to secure water-lines, which are materially more favorable to fast speed, and also to diminished resistance to moving power at all speeds, than the water-lines of any of the sea-going steamers now built, the best of which, looking to speed and ease of movement, have a length of only eight times their breadth of beam. The portion of our vessel not immersed has the same lines as that immersed, so that it will pass easily through the heaviest sea; while from its form and construction no water can be shipped that will sensibly augment the load or endanger the safety of the vessel, which may, we believe, be propelled at its highest speed in rough weather with an impunity which is far from being attainable with vessels as now built, to be propelled wholly or in part by sails. It is believed, also, that the plan and position of the propelling wheel in this vessel is such that its minimum hold of the water will be much greater in proportion to tonnage of vessel than the maximum hold of the propelling wheel or wheels in ordinary steamers, thus enabling the full steam power to be applied, with its maximum effect, at all times and uniformly, thus making available those properties of the hull of the vessel which allow it to be propelled at full speed in the roughest sea.

The engines are high pressure, and have a cut-off that is variable from $\frac{1}{8}$ to full stroke. They are four in number, and combined will exert three-fold more power in proportion to displacement of water than those of the most powerful steam packets now built.

The boilers are similar to locomotive boilers in plan and construction, and can consume about 30 tons of coal in 24 hours.

The above peculiarities of construction, it is believed, will enable the present vessel, even, notwithstanding the decided disadvantage she will labor under from her small size, to make better speed in smooth water than usual. It is believed, however, that the greatest advantages will be those exhibited in heavy weather, enabling her materially to exceed the average speed heretofore made upon the ocean.

Again, the vessel being built entirely of iron, she will be free from all danger from fire; and from the number of her distinct and water-tight compartments, she will be comparatively free from danger of sinking in case of collision or other mishap, as any one or even several of the compartments might be filled with water without seriously endangering her safety. And further, the form of the vessel, while it makes her stronger than usual, is such as to afford the least possible hold for the wind and waves; so that the danger of injury from heavy seas and storms is small. For these reasons it is believed that the vessel will be an unusually safe one.

The fact that every portion of the hull or outer shell of the vessel is arched in all directions, and the entire material is in the best possible position and form to resist the various strains that it can be subjected to at sea, gives it an important advantage in point of strength, safety, and bouyancy, over any other sea-going vessel.

The form and construction is remarkably plain and simple, resulting in great economy of material and workmanship, and facility of construction. The less the weight of material, the greater, of course, the capacity for carrying paying freight, and the less will be the resistance to moving power in proportion to such freight. With 200 tons of coal on board, the present vessel will displace about 350 tons of water, and will accommodate about 20 first-class passengers and the United States mail, with room to spare for small valuable packages, specie, &c.

We believe that shorter average ocean passages than have yet been obtained are desirable, and may be had by vessels constructed on our plan; and if they are confined to carrying passengers, the mail, specie, and such other freight as can well afford to pay a high rate, in consideration of extra dispatch and safety, we believe that they will pay better and be more useful than the vessels now used for these purposes.

We believe further that the same principles and properties which adapt our vessel to high average speed, also adapt it to the cheap, safe, and sure transportation of freight as compared with vessels using sails only or sails and steam combined. The small hold which the wind and waves have upon a vessel constructed on our plan, its easy movement through the water, the greater amount of freight that may be carried in proportion to weight and cost of vessel, the small risk to vessel and freight, and greater regularity in the time of making voyages, must, in our opinion, give to it great advantages in any competition, where economy, speed, and certainty, are the results to be obtained.

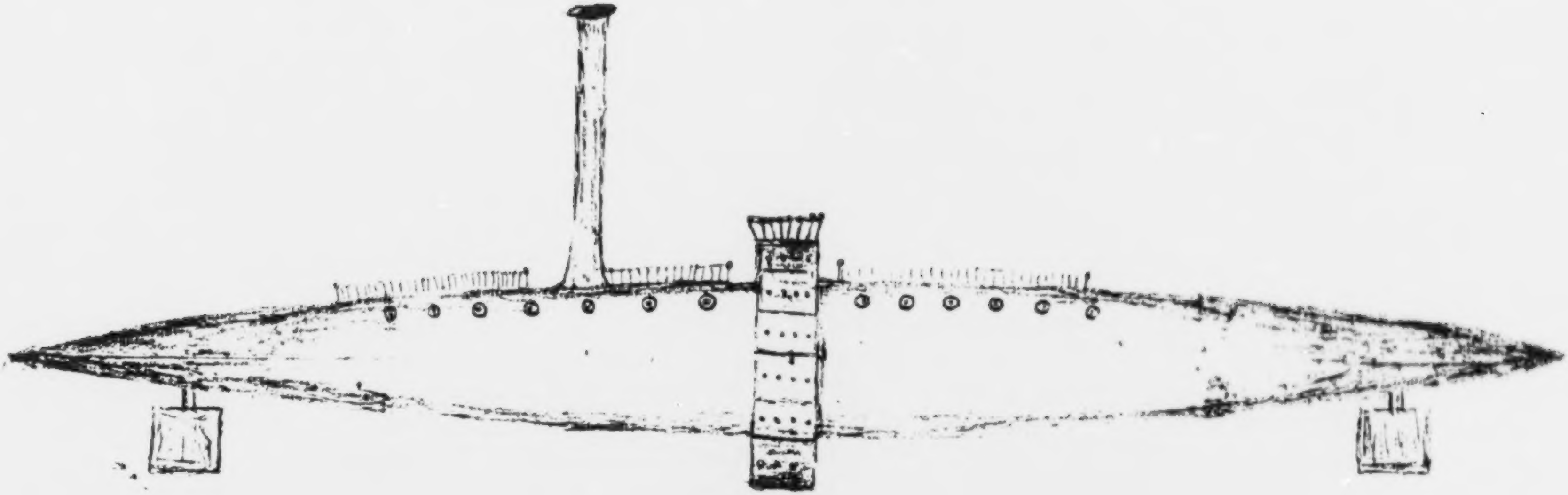
We also believe that due speed for passengers, and due economy for tonnage, when speed is not required, will justify the use of steam on our plan on many routes in a smaller and cheaper class of vessels, than any which can now be profitably employed.

ROSS WINANS,
THOMAS WINANS.

BALTIMORE, *September* 13, 1858.

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD

Reproduction Permission Granted
for Educational Purposes Only



WINANS' OCEAN STEAMER.

PRIMARY SOURCE # 10 (Ad/Broadside)

"Farmers! Before You Buy a Machine, Read This! [1860]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	A circular for Kirby's American Harvester, a combined mower and reaper
WHO?	Manufactured by D.M. Osborne and Co.; sold by B.P. Moore, Agent
WHEN?	1860
WHERE?	Manufactured in Baltimore; advertised throughout Maryland
WHY?	To promote the purchase of the Harvester

Description of the Source

The advertisement describes the virtues of an improved form of farm machinery and compares it to other machines. The circular includes information on price and lists customers across the state of Maryland who have used the Harvester. The broadside provides a look at the level of agricultural development in Maryland on the eve of the Civil War.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 206-209. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how new technologies have been promoted and sold to the public.
- How can technological development both create jobs and displace workers?
- How was agriculture mechanized in the 19th century?
- How did patents encourage technological and scientific change?
- Investigate the history of farming technology in America.

FARMERS!

Before you Buy a Machine, Read This !

None of these objections hold against the Kirby machine. The finger bar is stiff and firm, and yet *perfectly free in its play up and down* in following the inequalities of the ground. Either end will rise and fall, or the whole bar will rise and fall without any cramping to the machine, or connecting rod or cutters. Whatever may be the angle of the bar *the connecting rod is always in the same line*—turn the machine upside down and it is still in the same line, and the cutters perfectly free. With its one wheel it can run anywhere where a wheelbarrow can run. Hence it will work on rough land where the two wheel jointed machine can't stir. It has the weight of the frame added to the weight of the bar to hold it down to its work, and don't go "bobbing around." It is perfectly safe for the operator in all positions, and just as portable and convenient to ride to church on, if desired for that purpose, as the two wheel machines.

ence, no machine embodying this principle ever having been in successful use. There are a few being manufactured this year, but as yet they are merely an experiment, and will probably be short lived. They are only mowers, and make no pretentions to reaping. They possess the objections of two wheels, and we should judge the objection of weakness would apply with still more force to the spring than to the joint, while it must allow less freedom of play to the finger bar, especially at the inner end.

Thus while the independent action machines are very much superior to and destined to supersede all others, it is demonstrated that Mr. Kirby's method of obtaining the independent action is the best for a Mower, and the *only one* that is good for anything in reaping.

II. Wooden Machines.—Most of the machines now before the public are wooden machines, whether with the old fashioned rigid bars or the independent action. The old style wooden finger bar is so objectionable on every account that it has been generally abandoned, but most of the machines still retain the wooden frame. The objections to it are these: To obtain the required strength it must be cumberous and heavy. It shrinks and swells and warps with every exposure to dew, or shower, or hot sun. The nuts must then be tightened, throwing the gearing out of place, creating extra friction and wear, and after one or two years' work and storage, the machine is used up and has to be laid aside. The Kirby is an *Iron* machine, and not open to these objections. The gearing will be found in precisely the same position after being run twenty years as when it left the workman's hands. The finger bar retains its shape, the guards are in line, and everything remains without being subjected to change by every shower and every dew.

III. Combined Machines.—Here we have the field almost to ourselves. As you have seen, it is the only successful combined machine among the independent action machines, and among the old fashioned rigid bar machines there has never been but one that has gained any reputation as a combined machine. That is a wooden machine, and so heavy and cumbrous that it is generally known as the "Horse Killer," and is rapidly going out of use. Of the other rigid bar machines, while one or two have had their day as Mowers, most of them have only been Reapers. None of these have ever been successful in both mowing and reaping, and it has only been within a few years, since combined machines have come into general demand, that they have set up any pretensions to the ability to both mow and reap. Our independent action gives us an incalculable advantage over them as Mowers, to say nothing of our lightness of draft, portability, convenience, iron frame, etc., and we will only take the space to give some of the reasons why the Kirby is superior to any of them.

1. The independent action allows the cutters to be set at any height in a moment, thus adapting it to all kinds of grain, and gathering grass and clover seed, while the other machines can only change their height by building up the driving wheel, or some other equally bungling and inconvenient method.

2. The form of the platform and method of fastening it. Our platform is of peculiar form, extending back in an angular or curved shape, giving ample room for the grain, and permitting the raker to deliver the grain at the side by an easy sweep of the rake. The platform is fastened on top of the iron finger bar, thus giving stiffness and strength, and allowing the crossbraces underneath to have a bearing from the bar. Thus we are enabled to have a light and at the same time strong platform.

3. The raker's position. The most common position for the raker in the machines now before the public is a stand at the back or outer corner of the platform. Here the raker stands with his breast against a support, and with a fork, by two distinct and unnatural motions, pushes the grain off at the side by main force. Riding thus on the small wheel which supports the platform, he receives a blow on his breast every time the wheel passes over an obstruction or drops in a hole or dead furrow. But few constitutions can stand such usage long. Again, in order to [illegible] the whole weight in this position, the platform and its supports must be made strong and heavy. The raker's weight is carried on the small platform wheel, instead of on the driving wheel where it should be, thus creating a very heavy side draft, and every time the platform wheel passes over an obstruction or drops into a hole, the pole is thrown against the horses' sides, and the instances are numerous in which horses have been actually killed by this heavy thumping against their sides. In the Kirby machine the raker is placed directly behind the horses on a comfortable seat, his weight directly on the driving wheel where it is most easily carried, and with a rake of peculiar construction he can, by a quarter turn of the arms, which is perfectly natural and easy, leave the grain in good condition for binding, entirely out of the way of the machine on its succeeding swath. This position gives him full control of the grain, and enables him to work the machine with or without a reel, as he chooses, and is the *only* position in which a machine can be worked without a reel. It also permits the raker to dispense with a driver, which cannot be done in any other position. This position of the raker and form of the platform are secured by patent granted to Mr. Thos. D. Burrall; and the Kirby and Burrall machines are the only machines authorized to use it.

In reference to the machines that deliver the grain in rear, it is only necessary to say, that it requires several men to follow the machine and bind the grain while it is green, and move it before the next swath can be cut. This method of delivery is now generally abandoned. Thus you will see that the Kirby Machine is superior as a Mower to any that is adapted to *mowing only*, and surpasses as a Reaper any machine adapted to *reaping only*, and is really a *perfect* combined machine, and the only one in market entitled to that name. When you add to the advantages above named, its lightness of draft, *wherein it surpasses all machines*, its simplicity, durability, portability and convenience, we think you will feel no hesitation in coming to the conclusion that the Kirby Machine is the *best* one in market.

Maryland Historical Society Libr
201 W. Monument St., Baltimore, MD

PP

Reproduction Permission Granted
for Educational Purposes Only

FARMERS!

Before you Buy a Machine, Read This !

Some Reasons why the Kirby Harvester is the Best in market:

As many Farmers are not acquainted with the peculiarities of the various Harvesters in market, we will briefly point out to them the prominent features of the leading machines, that they may know what they are buying when they purchase a machine. In what we have to say, we shall speak of other machines in classes, as they embody similar principles, and you can apply the argument to various machines that come to your notice, as under the one or the other class.

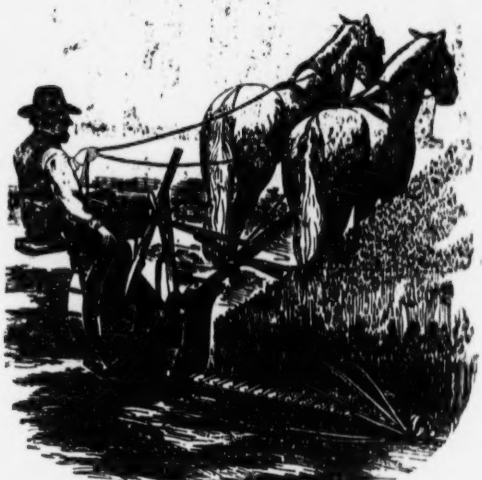
I. The first class which we shall mention, as it is the most important one, is the INDEPENDENT ACTION MACHINES. These machines have been introduced within three or four years, and their distinctive feature is *their ability to work on rough ground*, and this is accomplished by the *independent action of the finger bar*, which freely rises and falls in following the inequalities of the ground, independently of the driving wheel. This independent action gives the machine so many advantages on smooth as well as rough land, that the older machines not possessing this feature are fast going into disuse, and will soon be wholly abandoned. Indeed, the manufacturers are now *pressing these machines off on any time and at almost any price, to get rid of them*. You will find the independant action machines are the only machines that can be sold wherever the Farmers are posted up as to their merits. We shall therefore explain somewhat at length the advantages of Mr. Kirby's method of obtaining the independent action.

In the machines now before the public, the independent action is obtained in two ways. 1st. By a peculiar mode of attaching the driving wheel to the main frame, thus establishing the independent action between the wheel and frame, as in the Kirby machine. 2d. By a joint or spring in the finger bar near its connection with the frame, establishing the independent action between the bar and frame. These are the only modes of obtaining an independent action of the finger bar now in use. With the last mode it is *necessary* to use two wheels to carry the frame, or else the machine would *tip over*; and the manufacturers being forced into a two wheel machine, make a virtue of their necessity, and attempt to brag over it. It it was the object of a Harvester to be used as a cart for hauling manure, or a buggy to ride to church in, there might perhaps be some sense in bragging over the two wheels, but we suppose Harvesters are made primarily and solely for mowing and reaping grass and grain, and should be adapted to that as their chief end. For all the [illegible] decidedly objectionable. For instance, the Kirby machine, having but one wheel, can run in a ditch while the bar runs on the bank and cuts; no two wheel machine can do this, nor can it run in dead furrows or water furrows, *nor wherever the form of the land has a tendency to bring the machine into a similar position*. Again, the two wheel machines track so wide that it is impossible in reaping to deliver the grain out of the way of the machine on the next swath. Hence no successful two wheel Reaper has ever yet been made, and in regions where it is necessary to *pretend* the machine is a combined machine, in order to sell it at all, the manufacturers, while they recommend and warrant it as a Mower, say "The *reaping attachment* is warranted to work satisfactorily, and should it *fail to do so*, the *attachment may be returned*."

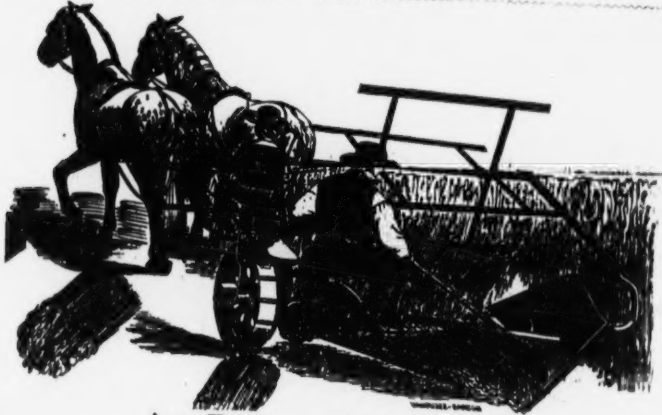
There are other reasons besides the width of track why a two wheel jointed bar machine cannot be made a successful reaper. The bar of a reaper should be stiff, as it has to carry the platform and load of grain, and usually the raker also. If the bar is jointed, of course there must be extra and complicated and cumberous fixings to hold it and its load in place, and there must be a strong wheel at the outer end of the bar and sometimes another at the inner end to hold it up and carry it. Thus you have three or more wheels running on the ground abreast, or nearly so, to hold the machine up, and keep its joints straight, and every turn of the machine and every uneven place cramps and strains both the wheels and the machine: and the side draft is very great. A successful reaper with two wheels and a jointed bar, is an impossibility.

The objections to a jointed bar for mowing are these; The joint comes in the very place in the bar where there is the most strain, and even if it is made strong enough to stand the strain, still, as it takes all the strain of the bar it must wear rapidly, and the outer end of the bar must drop back; this, of course, increases the strain and the friction, makes the cutters work hard, and the longer it is used the worse it gets, till it finds its way into the scrap heap. Again, the joint comes at or near the point of connection between the connecting rod or pitman and the cutters, and only when the machine is working on a dead level does the connecting rod work in line with the cutters. Whenever the finger bar is out of a level the connecting rod works at an angle, pulling and pushing the cutters against the top or bottom of the fingers, wearing them rapidly and creating friction; and whenever the ground is so rough as to throw the bar considerably out of level, the cutters bind and will not work at all. Hence you will find the agents of these machines will never allow you to lift the outer end of the bar while the machine is in motion. Still again, there is only the weight of the bar to hold it down to its work, and whenever the ground is sideling or in such shape as to give the outer end of the bar a tendency to raise, it goes "bobbing around" haggling the grass badly. Once more: in certain positions these jointed machines are dangerous to operate, especially so in stumpy ground, for when the horses are in full motion if the outer shoe comes in contact with some fixed obstruction the joint will double up like a "jack-knife," and the driver be converted into a two horse projectile, shooting through the air with more speed than safety.

KIRBY'S
AMERICAN HARVESTER



As a Mower—Weighs 660 lbs.



As a Reaper—Weighs 740 lbs.

Improved for 1860.

Improved for 1860.

We would call the attention of Farmers to the following facts:

That—This is the most perfect Combined Mower and Reaper in use; better than any single mower as a mower, and better than any single reaper as a reaper.

That—It is the strongest and the lightest; being made entirely of Iron, except pole, seat and platform. The finger-bar is of wrought angle iron, of great strength and lightness.

That—It has a Revolving Track-Clearer, which is the only track-clearer that will thoroughly separate the cut from the uncut grass, and without leaving the cut grass in bunches.

That—It requires one-third less draft than any other machine.

That—No pressure is made upon the horses' necks, and no side draft.

That—Its ability to work on rough ground is not equaled by any machine yet produced. The finger bar working up and down, independent of the driving-wheel, enables the machine to go through dead furrows and ditches, among stones and bogs, over knolls and gopher hills, where no other machine could follow it. It will work from 2 to 18 inches high.

That—It can be used in mowing either with or without the reel.

That—In both mowing and reaping, the positions of the driver and raker are the most convenient and easy, enabling them to do their labor with but little exertion.

That—While the machine is in motion the driver can, by means of a lever, throw the cutters out and into gear, and by another lever he can raise and lower the finger bar to pass obstructions, or move from field to field.

That—It is easily managed, marvelously simple, well built, compact, not liable to get out of order, made of the best materials, Babbet metal boxes, and is furnished with double trees, neck yoke and extras complete.

For the general working of the Machine, we refer you to the following gentlemen. For its advantages over other machines, read the other side of this circular.

H. M. Murray, Esq., West River, Maryland.
L. C. Combs, Esq., St. Marys River, St. Marys Co. "
Wm. A. Combs, Esq., Leonardstown, " "
Joseph S. Gough, Esq., " " "
H. A. Ford, Esq., " " "
John E. Simons, Esq., " " "
John F. Fenwick, Esq., " " "
B. R. Abeel, Esq., " " "
Thos. W. Gough, Esq., Medley's Neck, " "
Gustavus Greenwell, Esq., " " "
C. Combs, Esq., Great Mills, " "
A. F. Fenwick, Esq., Hanover, " "
Wm. H. Ford, Esq., St. Inegoes, " "
R. T. Gough, Esq., Potomac River, " "
Chas. S. Somerville, Monticello, Calvert Co., "
John M. Brown, Esq., Old St. Marys, St. Marys Co. "
W. W. W. Bowie, Esq., Prince George's Co., "
John F. Harris, Esq., Leonardstown, St. Marys Co. "
Patuxet Planter, Esq., Prince George's Co., "
Wm. H. Ramsburg, Esq., Frederick City, "
Geo. H. Rizer, Esq., " "
John Zimmerman, Esq., " "
Abram Kemp, " "
Noah J. Foxwell, Esq., Talbot Co., "
H. C. Tilghman, Esq., River Side,
near Easton, Talbot Co., "

N. Martin, Esq., Talbot Co., Maryland.
Samuel J. Jarman, Esq., Beaver Dam, "
B. M. Bowdel, Esq., Talbot Co., "
Hon. Richard B. Carmichael, Queen Ann's Co., "
Dr. Wm. H. DeCoursey, Cheston, " "
John F. Willis, Esq., Talbot Co., "
Chas. B. Tilghman, Esq., Queen Ann's Co., "
David Kerr, Jr., Esq., Talbot Co., "
A. Remar, Esq., Monkton, Baltimore Co., "
James Cheston, Esq., West River,
Ann Arundell Co., "
Daniel Lloyd, Esq., Queen Ann's Co., "
Thos. R. Brown, Esq., Hermitage, Kent Co., "
Dr. Wm. B. Magruder, Brookeville,
Montgomery Co., "
Jetson Granger, Esq., Montgomery Co., "
Nathan Childs, Esq., " "
Col. Edward Lloyd, Talbot Co., "
Jas. L. Briscol, Esq., Park Hall, St. Marys Co., "
A. T. Martin, Esq., St. Marys Co., "
Frank Spencer, Esq., " "
A. McWilliams, Esq., Medley's Neck, " "
Dayton Welch, Esq., Society Hill, " "
Richard S. Mercer, Esq., Parkhurst,
Ann Arundell Co., "
Henry Fitzhugh, Esq., Sherwood Forest, Stafford Co., Va.

Price of Combined Machine in Baltimore,		**$140**
" **Mower only,**	"	**120**
" **Mower with Reel,**	"	**130**

MANUFACTURED BY

D. M. OSBORNE & CO.,

145 Pratt Street, (opposite Maltby House,) Baltimore, Md.

B. P. MOORE, Agent, Belair, Md.

Maryland Historical Society Library
201 W. Monument St. Baltimore, MD

PP

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I:

PRIMARY SOURCE # 11 (Document)

West. Letter to Friends All and Ed [15 May 1861]. Civil War Collection, MS.1860. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	A letter that mentions the capture of the inventor of the steam-gun
WHO?	Written by a Union soldier who signs himself as "West" to "Friends All and Ed"
WHEN?	May 15, 1861
WHERE?	Ellicott's Landing, Maryland (6 miles from Baltimore)
WHY?	To provide news of the war to friends back at home

Description of the Source

The writer recounts an event he witnessed, the capture of Mr. Dickenson, the inventor of the steam-gun. He describes the gun, Dickenson's arrest, and other details observed by a soldier present during the raid. West also tells of camp life during the Civil War.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 279-281. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

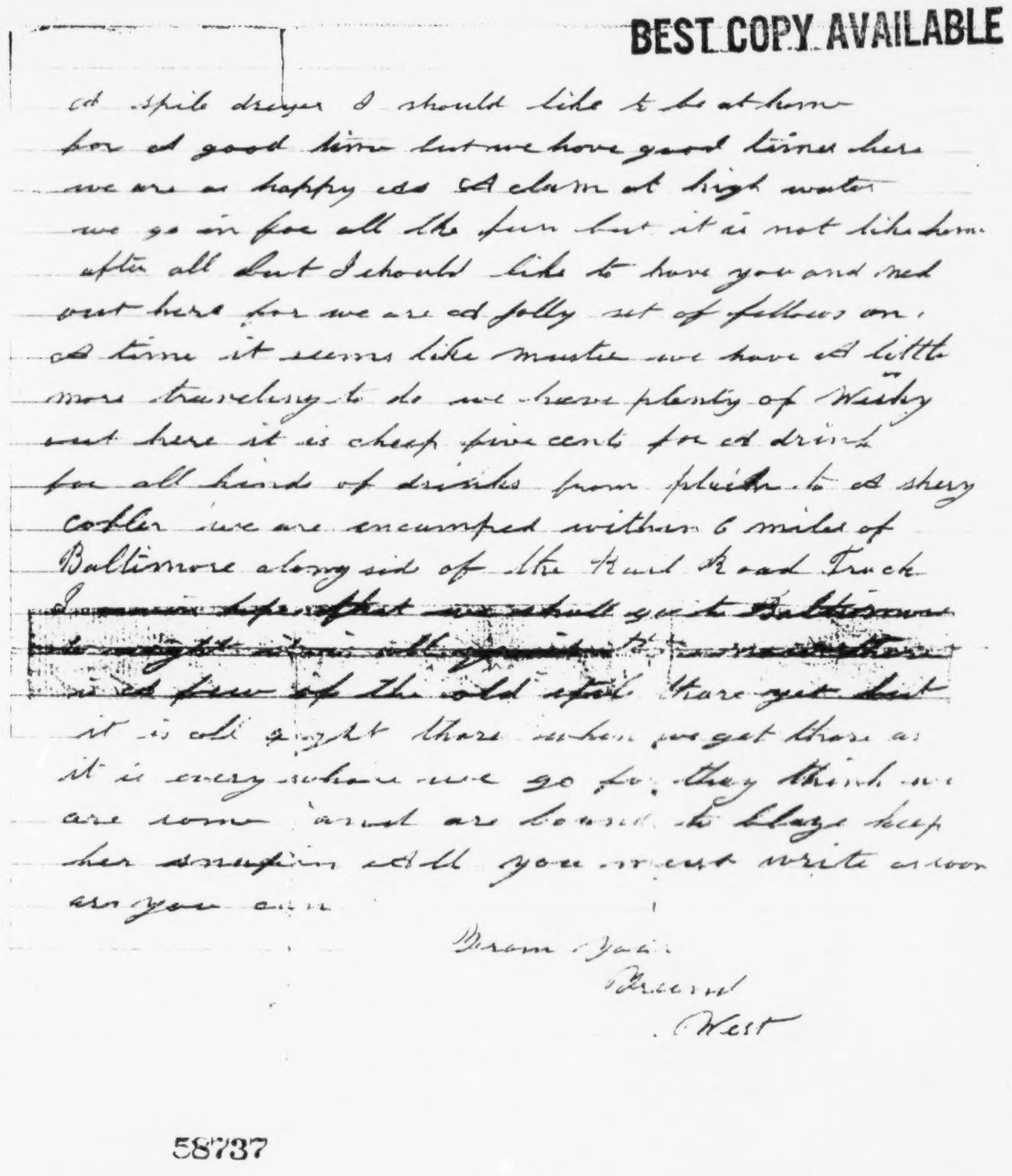
- Investigate the role of inventors in wartime.
- How have wars impacted technological development?
- How did the Winan steam-gun influence later developments in artillery?
- How has the evolution of new power sources impacted weapon design?
- How has the development of new technologies influenced the nature of warfare?
- Investigate the life, works, and causes of 19th century millionaire Ross Winans.

Ellicot Landing May 15

Friends A H and Ed

I received your letter to day and I thought I would answer it but I have not got much time to spare you say Fred Babson has got home he was with the Sappers and miners they arived in New York in the Constitution there was twenty of our company in her Johnson was one of them and I guess Babson got on a spree and got left on purpos he and Charles Littlefield you say you are going a Rock Codding oh how I should like to go on a good time but as you say I shall in a short time keep the Pickler in good order so when I get home I can go on one fishing time we are camped at we left Washington City yesterday at 10 PM and I expect we shall go to Baltimore in a day or two we had an alarm last night we turned out in a hell of a hurry but we had no fight the guard captured the man that invented the steam gun that Gen Butler captured last week that gun is the dandest thing I ever saw it looks like a shovel nose shark at one end and at the other it looks

3197



a spile drayer I should like to be at home
for a good time but we have good times here
we are as happy as a clam at high water
we go in for all the fun but it is not like home
after all but I should like to have you and Ned
out here for we are a jolly set of fellows on
a time it seems like muster we have a little
more traveling to do we have plenty of Wisky
out here it is cheap five cents for a drink
for all kinds of drinks from plain to a shery
cobler we are encamped within 6 miles of
Baltimore along side of the Rail Road Track
I ~~am in hopes that we shall~~ quit ~~Baltimore~~
~~to night~~ [illegible]
~~is a few of the old stuff there yet but~~
it is all right there when we get there as
it is every where we go for they think we
are some and are bound to blaze keep
her smokin all you must write as soon
as you can

From your
Friend
West

58737

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 2120

MS 1860

Reproduction Permission Granted
for Educational Purposes Only

Transcription of Primary Source #11

[1861]

Ellicot Landing May 15

Friends All and Ed

I recieved your letter to day and I thought I would aswer it but I have not got much time to spare you say Fred Babson has got home he was with the trappers and miners they arrived in New York in the Constitution thare was twenty of our company in her Johnson was one of them and I gess Babson got on a spree and got left on purpos he and Charles Little field you say you are going Back Coding [?] oh how I should like to go on A good time but As you say I shall in a short time keep the Pickler [?] in good order so when I get home I can go on one fishing time we are camped out we left Washington City yesterday at 10 PM and I expect we shall go to Baltimore in A day or two we had an alarm last night we turned out in A hell of A hurry but we had no fight the guard captuered the man that invented the steam gun that Gen Butler captured last week that gun is the damdest thing I ever saw it looks like A shovel nose shark at one end at the other it looks *spile driver I should like to be at home for A good time but we have good times here we are as happy As A clam at high water we go in for all the fun but it is not like home after all but I should like to have you and ned out here for we are A jolly set of fellows on A time it seems like muster we have A little more traveling to do we have plenty of Wisky out here it is cheap five cents for A drink for all kinds of drinks from plain to A shery cobler we are encamped within 6 miles of Baltimore along side of the Rail Road Track I am in hopes that we shall go to Baltimore to night it is all quiet till now there is A few of the old stil thare yet but it is all right thare when we get thare as it is every where we go for they think we are some and are bound to blaze keep her snufin All you must write as soon as you can*

From your
Friend
West

Maryland Historical Society Library
201 W. Monument St. Baltimore, MD 21201

Note: The spelling, capitalization, and punctuation are West's.

MS 1890

PRIMARY SOURCE # 12 (Newspaper)

"The Winan's Steam-Gun, Lately Captured on Its Way to Harper's Ferry." *Frank Leslie's Illustrated Newspaper*, 1861. Z24.1319. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	An article and illustration on the capture of the steam-gun during the Civil War
WHO?	Printed in *Frank Leslie's Illustrated Newspaper*
WHEN?	1861
WHERE?	Article published in New York; capture occured in Ellicott's Mills, Maryland
WHY?	To cover a newsworthy event during the Civil War

Description of the Source

The article and illustration describe what the steam-gun looks like and how it and its inventor were captured by Federal troops during the Civil War. The article explains why Mr. Dickenson's invention is called the "Winan's Steam-gun." It was manufactured and owned by millionaire Ross Winans. Because this source includes a newspaper article and illustration, it could be interpreted as both a newspaper and as a picture.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 279-281. Baltimore: The Johns Hopkins University Press, 1988.

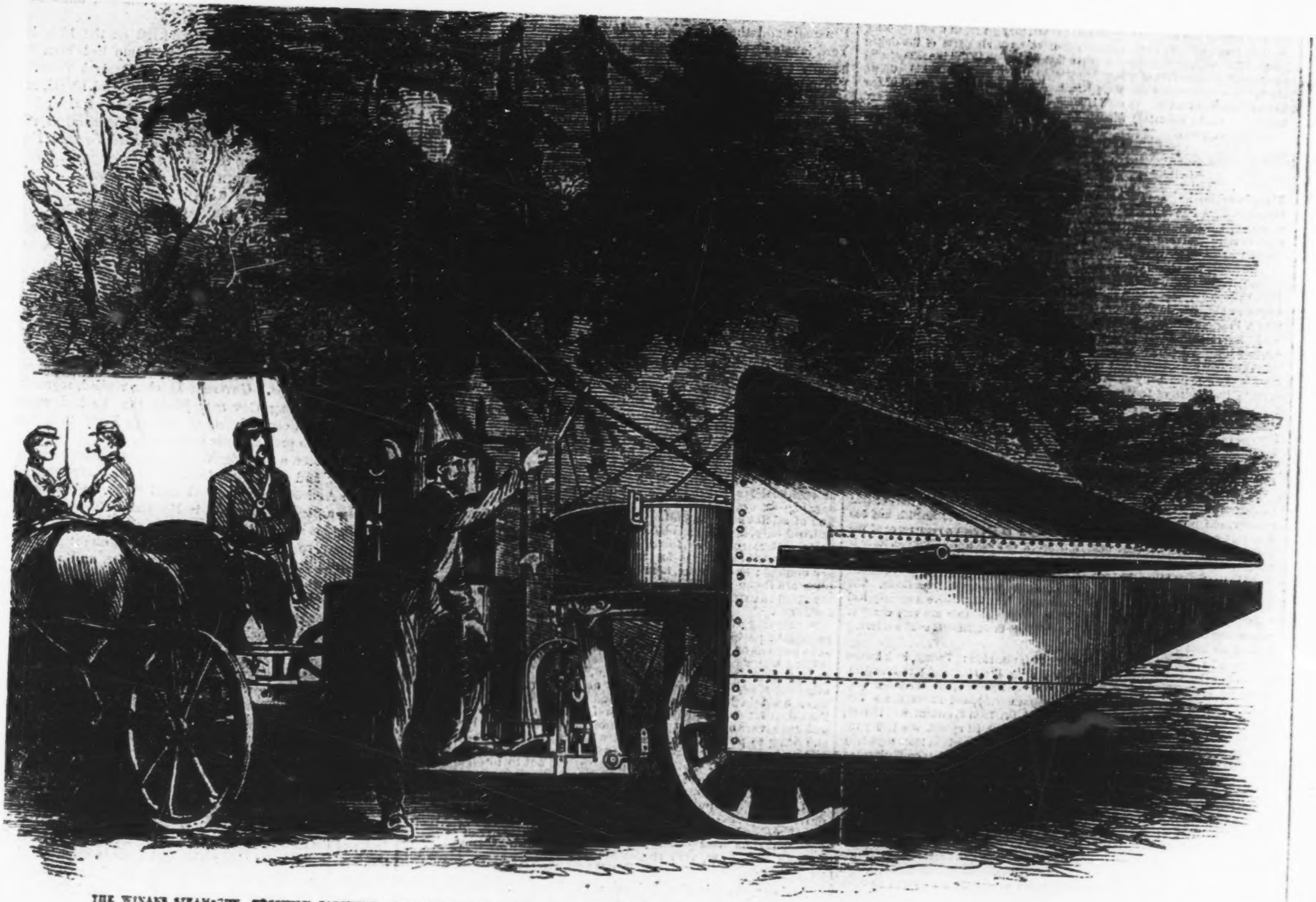
Research Topics and Discussion Prompts

- Investigate the role of inventors in wartime.
- How have wars impacted technological development?
- How did the Winan's steam-gun influence later developments in artillery?
- How has the evolution of new power sources impacted weapon design?
- How has the development of new technologies influenced the nature of warfare?
- Investigate the life, works, and causes of 19th century millionaire Ross Winans.

THE WINAN'S STEAM-GUN, LATELY CAPTUR ON ITS WAY TO HARPER'S FERRY.

FOR the last twenty years it has been a favorite idea to bring steam to bear upon gunnery, and in 1844 Mr. Perkins, of London, at an immense cost of money, time and labor, introduced his famous steam-gun to the public. It was not a success. Since then many experiments have been made, the most portentous of which is the famous gun invented by Mr. Dickenson, but manufactured and owned by the celebrated cigar-steamer millionaire, Mr. Ross Winans. Our Artist has given an exact sketch of this famous engine of war, which has lately been captured by the Federal troops as it was on its way to Harper's Ferry. Its capture is thus described:

"On Friday afternoon, the 10th inst., a party consisting of Captain Sawtelle's company of the Sixth Massachusetts Regiment, and a company of the Eighth New York, and two guns of the Boston Flying Artillery, under Lieutenant Mortimer, the whole under the command of Major A. M. Cook, were sent out to find the steam-gun, which it was rumored had been sent around from Baltimore, to be put on the cars below the camp at Relay, to be forwarded to Harper's Ferry. A special train took the party to Ellicott's Mills, about seven miles distant, where they found the gun, in the charge of three men, but otherwise unguarded. They took possession of the gun and four mules harnessed to it, made prisoners of the men, and returned to the Relay with their trophy. The prisoners, one of whom is Mr. Dickenson, the inventor, have been sent to Annapolis."



THE WINANS STEAM-GUN, RECENTLY CAPTURED NEAR THE RELAY HOUSE, BY MAJOR-GENERAL BUTLER'S COMMAND.—FROM A SKETCH BY OUR SPECIAL ARTIST.—SEE PAGE 2.

PRIMARY SOURCE # 13 (Picture)

Sachse, E. and Co. "The Chesepeake Marine Rail Way and Dry Dock Co. of Baltimore, Md. [c. 1868]." Tinted lithograph. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Tinted lithograph depicting the Chesepeake Marine Rail Way and Dry Dock Co.
WHO?	Printed by E. Sachse and Co.
WHEN?	c. 1868
WHERE?	Baltimore
WHY?	To illustrate industry and landmarks of Baltimore in the late 1860s

Description of the Source

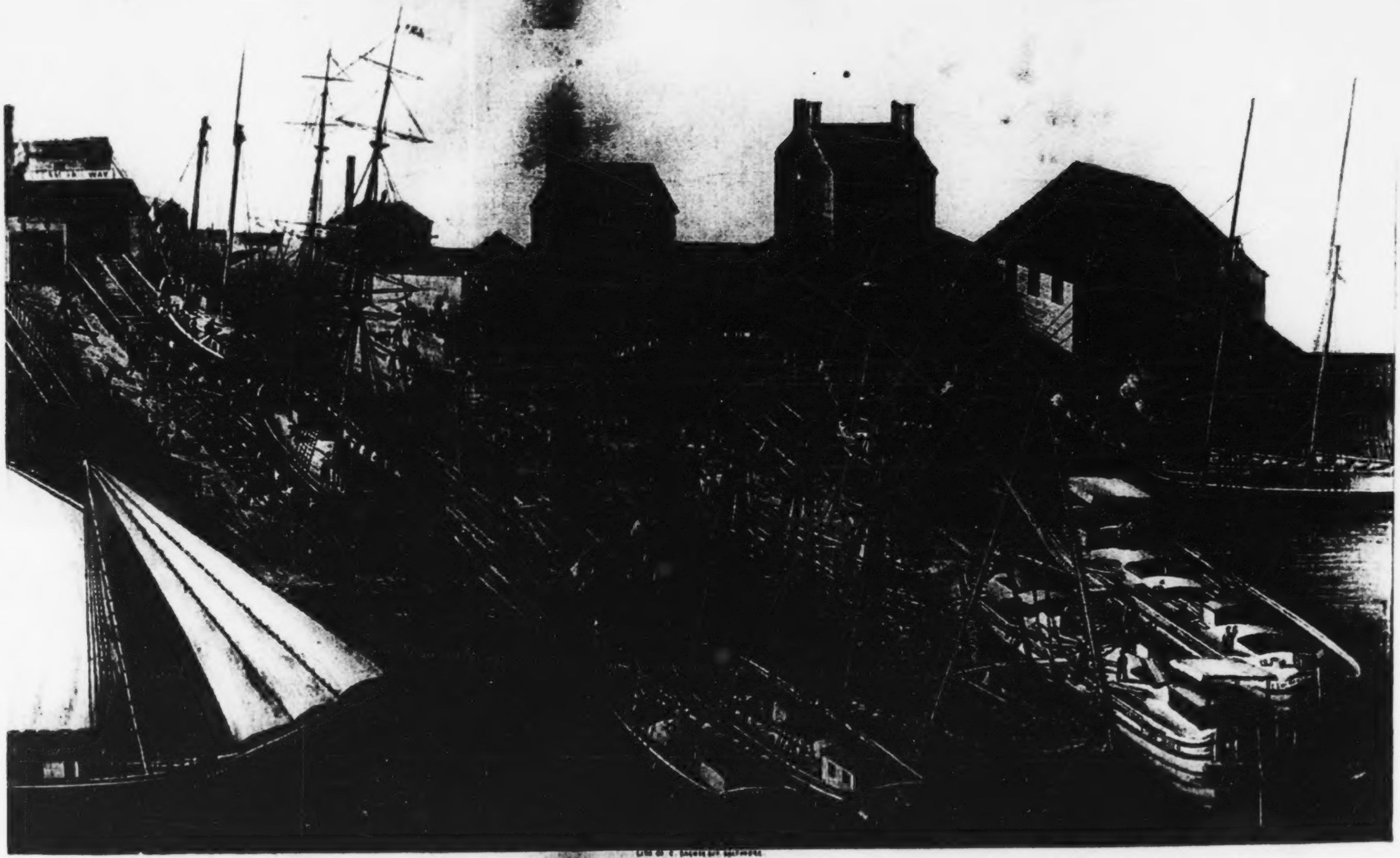
The lithograph depicts a dry dock and shipyard owned by a free-born African American named Isaac Meyers. The company was established in 1866 as a cooperative to employ African-American workers during a time when the job market was tight in Baltimore shipyards. The picture is very detailed; note the people working, the variety of sailing vessels, and the railroad coming into the dry dock.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 310-311. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did African Americans form alliances for economic opportunity?
- How have different modes of transportation combined to form transportation networks?
- How did innovation in transportation foster the growth of specialized industry?
- Investigate the history of ship-building technology.
- How can technological development both create jobs and displace workers?



THE CHESEPEAKE MARINE RAILWAY & DRY DOCK CO. of BALTIMORE, MD.

Instituted Feb. 1866. – Incorporated Aug. 1868.

CAPITAL $ 100,000.

OFFICERS for 1866.
G. WASHINGTON PERKINS, Prest
EDW SYTHE, 1st Vice "
W. SORRELL, 2d " "
ISAAC MYERS, Secretary.
JOSEPH THOMAS, Treasurer.
L. CORNISH, Cashier.
S. DORRITY, Supt

OFFICERS for 1868.
JOHN W. LOCKS, President.
GEORGE MYERS, 1st Vice "
REV. W. WILLIAMS, 2d " "
ISAAC MYERS, Secretary
JOSEPH THOMAS, Treasurer
JOHN H. SMITH, Cashier
SAMUEL DORRITY, Supt

OFFICERS for 1867.
JOHN W. LOCKS, President
JOHN H. SMITH, 1st Vice "
EDW. SYTHE, 2nd " "
ISAAC MYERS, Secretary
JOSEPH THOMAS, Treasurer
CAUSEMAN H. GAINES, Cashier
S. DORRITY, Supt

PRIMARY SOURCE # 14 (Document)

Winans, Ross. "The Harbor Nuisance." In *Gleanings from Various Authors on Sanitary Matters*, 42-44. Baltimore: John P. Des Forges, 1875. Winans Papers, MS.916, Box 24. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	An excerpt from a book examining issues of sanitation in Baltimore
WHO?	Selected, prepared, and published by Ross Winans
WHEN?	Book published in 1875; article appeared in *The Sunday Telegram* April 25, 1875
WHERE?	Baltimore
WHY?	To advocate that the City Council act swiftly to clean out the Baltimore harbor

Description of the Source

The article urges immediate dredging of the harbor to remove mud and filth, citing the threat of disease and stench as reasons for this action. Note that this was written 80 years after the Baltimore City Ordinance passed to "preserve the health of the city" in 1797 (see Primary Source #3). Because this source is an excerpt from a newspaper, it could be interpreted as a document or as a newspaper.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.363, 391-392 . Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate the life, works, and causes of 19th century millionaire Ross Winans.
- How is disease related to pollution?
- What methods have been used to clean the Baltimore harbor?
- What is the environmental impact of dredging the harbor?
- Investigate the history of pollution and efforts to fight pollution.
- Investigate how city, state, and national governments have sought to promote public health.
- To what extent did Americans understand the causes of disease and effective ways to combat it in the late 19th century? How has our understanding of disease evolved over time?
- How did the introduction of steam power affect the port of Baltimore and Maryland?

MS 916

GLEANINGS

FROM VARIOUS AUTHORS

ON

SANITARY MATTERS.

SELECTED, PREPARED AND PUBLISHED

BY

ROSS WINANS.

BALTIMORE:
JOHN P. DES FORGES.
1875.

might be urged against it. In fact, were it not for the timely services of Mr. Kirk it would probably have gone through anyhow, though we think it could hardly have secured the signature of Mayor Vansant.

[From *The Sunday Telegram*, April 25, 1875.]

THE HARBOR NUISANCE.

We have persistently insisted upon the necessity of cleaning out the harbor or basin by the quickest, cheapest, most available means, so as to remove the cause — mud, filth, decomposed vegetable or animal matter settled at its bottom—producing the disagreeable stench and unhealthy atmosphere arising therefrom. This is the very first and most important matter to be considered, and we are amazed it has not so impressed members of the City Council, making them authorize provisions therefor at once. It is really the only thing that can be done practically and in time to avert evil consequences., The months—we might almost say years—already expended in idle talk about various abortive schemes, plans and propositions to remedy this nuisance, had they been judiciously utilized in real work — in dredging by a dozen or more mud-machines, thoroughly cleaning out mud and other offensive matter settled on the bed of the basin and continually stirred up by steamboats —would already have accomplished all that

PRIMARY SOURCE # 14
Encountering Maryland's Past, Volume 1: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society
MS 916
Maryland Historical Society Library

is absolutely required. No matter what else may eventually be done, that mud and filth must be removed, or the city, in self-defence, taking into consideration her commerce, future prospects, healthfulness and exemption from dangerous, damaging epidemics, must do it independent of all special legislation. Put an efficient dredging fleet, regardless of expense, at work without further delay, and clean the harbor. This is what must be done, and the time is now at hand to do it. It will not suffice to interdict the outgoing and incoming of steamboats and other vessels from and to our port, but make it so that there will be no vile mud and filth to stir up, causing an abominable effluvium, calculated to offend our olfactories, spread contagion and drive strangers away from the city during hot summer months. We speak plainly in the light of common sense regarding this matter that every one can understand. It is the accumulated filth of years, deposited in the basin and harbor from the sewers and city drainage, that has caused all the trouble. No matter how much flooding or fresh water be poured into that cesspool, it will be only as a drop in the bucket, less effective than a mosquito on a rhinoceros' back, unless the basin be relieved of sickening filth lodged on its bed, which, when agitated, must be offensive and unhealthy. We are gratified to observe that our venerable and far-seeing citizen, Ross Winans, Esq., agrees with us, and, after discussing various plans, has come to this sensible conclusion. He, as we have done long ago, goes in emphatically for applying the mud-machine as the only immediate and effective remedy. Scarcely does a new proposition or plan come up, meeting apparently approbation from the city authorities, that there is not some underground manœuvring by those interested to procure the contract for carrying it out or doing the work. This even has already gone so far as to create a suspicion that members of the Council had been bribed to support it. Men thus anxious to make money care not a farthing what result follows, so that they can accomplish sinister ends and make money. We want the stinking mud and filth removed speedily from our harbor. That is the idea, and the work is easy of consummation.

[From *The Baltimore American*, May 3, 1875.]

THE MAYOR AND THE FALLS

Messrs. Editors—In the message of the Mayor communicating his veto of the ordinance for widening East Baltimore street, there is made, incidentally, an announcement calculated to surprise everybody and to alarm taxpayers In recounting the public works in which the city is already embarked, Mr. Vansant says: "The measure of a permanent supply of water from the Gunpowder at a cost of $4,000,000 has been

PRIMARY SOURCE # 15 (Document)

Baltimore and Ohio Railroad. "Statement of Losses and Damages during Strike in July 1877." Baltimore and Ohio Railroad Records, MS. 2090. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Accounting of losses and damages to company property caused by a labor strike
WHO?	Prepared for the President of the B & O Railroad
WHEN?	July, 1877
WHERE?	Records damages to B & O property in Maryland, Pennsylvania, West Virginia, and Ohio
WHY?	To calculate financial losses incurred by the strike

Description of the Source

This source is a damage assessment prepared by the B & O Railroad after a large labor strike in July of 1877. Workers struck along the B & O Railroad line because of wage reductions caused by a downturn in the economy. The total cost of repairs and destroyed property was calculated at $94,491.50. The report provides compelling information on strikers' actions from the perspective of the company.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 341-345. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Why has the American government become involved in labor disputes in transportation and industry?
- What is the cost - both human and technological - of strikes?
- What impact did the railroad strike of 1877 have on transportation?
- What gains have been achieved through strikes and other labor actions?
- How does technology serve as a tool in labor disputes?

Losses and Damages by the Strike and Riots – July, 1877.

Machinery Department.

July 17th	Gas House switch.		
	Engine 161 thrown from the track, caused by switch being misplaced, and damaged as follows:– Cab, runningboards, and pilot all destroyed – Head Light, flues, furnace, pumps and tender badly damaged. Cost of repairs	$720.	59
	Hopper #1351 Trucks & body badly damaged	113.	32
	" 1127 " " "	89.	09
	" 1824 " " "	78.	47
	" 698 Body slightly damaged	1.	95
	" 1323 " " "	10.	73
	" 1588 " " "	7.	18
	" 1020 " " "	5.	43
	Gondola 2331 Totally destroyed	390.	00
	Total	1416.	76

BEST COPY AVAILABLE

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

MS 2090

Reproduction Permission Granted
for Educational Purposes Only

1877.

Statement of
Losses and Damages
during Strike in
July 1877.

Strike

(For copy see large
copy-book.)

43796 President's Office. July 1877 Subject No. 197

July 20th	Camden Station.		
	Engine 407- Burned by Mob. Pilot, head lamp, signal lamps, cab, running boards, truck-springs, side-rods, safty valves, whistle, injector and tender, all badly damaged – Cost of repairs – – –	481.	48
	Engine 410- Burned by Mob. Cab, steam-chest, casing, head lamp, signal lamps, all destroyed - Tender damaged – Cost of repairs. – ——	436.	46
	Baggage Car #26- One side and one end badly burnt, one platform and tin roof destroyed –	172.	76
	Passenger Car #97 Roof damaged	10.	42
	" " 254 " "	10.	42
	Baggage " 126 " "	10.	42
	Emigrant " 351 " "	10.	42
	Express " 7135- Body badly burned	81.	37
	Riggers " 992- " Slightly "	4.	05
	Annapolis & Elkridge Passenger Car No. 25, completely destroyed, except the trucks – — — — — –	2000.	00
	O. A. & M. House Car #300, entirely destroyed	495.	10
	Total	4212.	84
July 21st	Mount Clare Junction.		
	House Car #a171 destroyed by fire	495.	10
	" " a484 " "	495.	10
	" " 15022 " "	495.	10
	" " 707 " "	495.	10
	" " 25358 " "	495.	10
	" " 8004 " "	495.	10
	" " 1791 " "	495.	10
	Hopper " 2427 woodwork destroyed	28.	68
	Total	3494.	33

Losses and Damages by the Strike and Riots – July, 1877.

Machinery Department continued

July 29th.	Keyser Station – – – – – – .	
	Mob threw away, from Engine 419, the shovel, poker and rake – worth.	$2.64
	also threw away the couplings and pins from 25 cars =	19.75
	Total	22.39

July 30th.	Thunder Hill Switch.	
	Mob changed switches, throwing Engine #19 and one car from the track –	
	Damage to Engine –	16.93
	Cost of putting Engine and car on the track –	14.76
	Total	31.69

July 17th.	Grafton.	
	Hose cut by mob on nine (9) Engines – cost	7.66
July 22d.	Strikers ran Engine 266 into train of Engine 91 – damaging Engine 266.	15.99
	B&O. House car – #242 Bumpers & drawheads damaged	8.13
	" " " 1826 " " "	1.95
	" " " 8213 " " "	3.85
	" " " 690 " " "	6.60
	" " " 279 " " "	2.46
	M&C. " " 37 " " "	28.81
	Total	75.45

	Total Loss and Damage to Machinery Dept –	9,253.46

July 1877.	Baltimore & Ohio cars destroyed at Pittsburgh –	
	92 House Cars @ $495.10 each =	45,549.20
	28 Gondola " " 390.00. "	10,920.00
	Total	56,469.20

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

MS 2090

Reproduction Permission Granted
for Educational Purposes Only

Losses and Damages to Road Department E. of C. July-1877

July 20th	Camden Station.		
	One office, at Lee St, 7'x20' value.	$110.	00
	Five watch boxes 8'x8' @ $75.– each	375.	00
	One dispatchers Office 10'x25'	500.	00
	Damage to tool house – near Lee st, –	12.	00
	" " Depot shed, between Lee & Barre Sts, estd	3620.	00
	" " tracks – estimated –	115.	00
	Total.	4,732.	00
	Total Loss and Damage to Road Dept. E. of C. =	4,732.	00

Losses and Damages to Road Department W. of C. July-1877.

July 30.	Between Piedmont & Keyser.		
	Damage to switch and track, by the rioters misplacing the switch =	15.	00
	Total	15.	00
	Total Loss and Damage to Road Dept. W. of C. =	15.	00

Losses and Damages to Transportation Department. July, 1877.

Camden Station.

July 20th.	By the burning of Dispatcher's Office -		
	One copying press -	$5.	00
	Three chairs —	5.	25
	One stove	8.	00
	Stationery —	2.	00
	Total	20	.25
	Total Loss and Damage to Transportation Dept. -	20.	25

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

MS 2090

Reproduction Permission Granted
for Educational Purposes Only

Losses and Damages to Telegraph Department. July 1877

July 20th	**Camden Station.**			
	By burning of Dispatcher's Office — —			
	1 eight wire switchboard		$40.	00
	5 Relay Instruments	@ $12.00	60.	00
	6 Sounders "	" 6.00	36.	00
	6 Keys	" 5.00	30.	00
	1 small switchboard		5.	00
	1 Main Line Sounder Instrument damaged		6.	00
	1 Call bell		6.	00
	1 Bell-Key		3.	00
	12 complete cups local battery	@ $1.40	16.	80
	25 lbs. Blue Vitriol	" .08¢	2.	00
	12 " Office wire	" .75¢	9.	00
	10 " " " (Bishops guttapercha)	" 1.60¢	16.	00
	6 feet hard rubber tubing	" .40¢	2.	40
	25 Office Brackets	" .03¢		75
	1 Howard clock		24.	00
	1 Telegraph Pole		1.	50
	6 Cross arms	@ .30¢	1.	80
	24 Insulators	" .08¢	1.	92
	24 Pins	.04		96
	8 Days Labor for same	@ $2.00	16.	00
		Total.	279.	13
July 21st	**Mount Clare Junction.**			
	Destroyed by rioters by burning Oil cars.			
	1 Telegraph Pole, Brackets & Insulators =		1.	37
	Labor on same — 1/2 day — @ $2.00 —		1.	00
		Total —	2.	37
	Total Loss and Damage to Telegraph Dept., =		$281.	50

Losses and Damages to Gen'l. Freight Agents Dep't. July, 1877.

Claims paid by Gen'l. Freight Agent	$13,594.15	
Less amount realized from sales of damaged goods (deposited with Treasurer)	8,330.80	
Net Loss = 5,263.35		$5,263.35
Claims filed with Gen'l. Freight Agent to Oct. 30, 1877, but not yet settled, Amount to =		18,408.82
Aggregate =		$23,672.17

These claims are exclusive of all loss in connection with Oil

Maryland Historical Society Library
201 W. Monument St.

MS 2090

Reproduction Permission Granted
for Educational Purposes Only

Losses and Damages to Trans-Ohio Divisions - July 1877.

July 23rd	"There was no damage to the buildings cars, or other property of the Company, excepting on the	
	## Straitsville Division,	
	the trestle work south of Somerset was set on fire, but speedily extinguished.	
	Expenditures to replace burned portions =	$47.92
	No claims have been made upon any of our Agents for loss or damage to freight."	
	Total -	47.92
	Total Loss and Damage to Trans-Ohio Divisions -	47.92

Recapitulation.

Machinery Department =	$9,253.	46
Road Department, E. of C. =	4,732.	00
Road Department, W. of C. =	15.	00
Transportation Department =	20.	25
Telegraph Department =	281.	50
Genl. Freight Agents Department = aggregate	23,672.	17
	37,974.	38
Trans-Ohio Divisions. =	47.	92
Damage to equipment whilst on Pennsylvania Railroad. =	56,469.	20
Aggregate =	94,491.	50

Maryland Historical Society Library
201 W Monument St Baltimore MD 21201

MS 2090

Reproduction Permission Granted
for Educational Purposes Only

PRIMARY SOURCE # 16 (Picture)

"Maryland. - The Baltimore and Ohio Railroad Strike - Scenes and Incidents of the Conflict between the Sympathizers with the Strikers and the Fifth and Sixth Regiments Maryland Militia, in Baltimore, July 20th. - From Sketches by Our Special Artists." *Frank Leslie's Illustrated Newspaper*, August 4, 1877, 1. MB 4182. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Cover page from national newspaper that depicts a B & O Railroad Strike
WHO?	Drawn by artists from *Frank Leslie's Illustrated Newspaper*
WHEN?	Published on August 4, 1877; covers strike that occurred in July 1877
WHERE?	Published in New York City
WHY?	To cover a newsworthy event of interest to the nation

Description of the Source

The illustrations depict strikers and strike sympathizers attacking soldiers from the Maryland Militia called out to subdue the strike. This source could be interpreted as a picture or as a newspaper.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 341-345. Baltimore: The Johns Hopkins University Press, 1988.

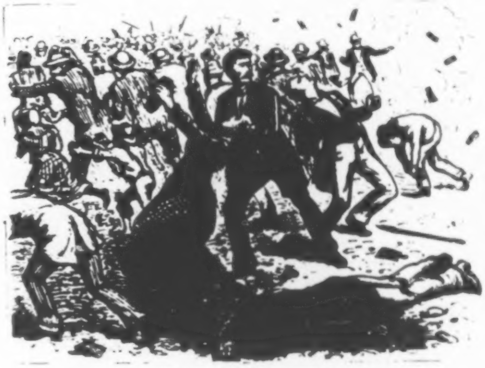
Research Topics and Discussion Prompts

- Why has the American government become involved in labor disputes in transportation and industry?
- What is the cost - both human and technological - of strikes?
- What impact did the railroad strike of 1877 have on transportation?
- What gains have been achieved through strikes and other labor actions?
- How does technology serve as a tool in labor disputes?

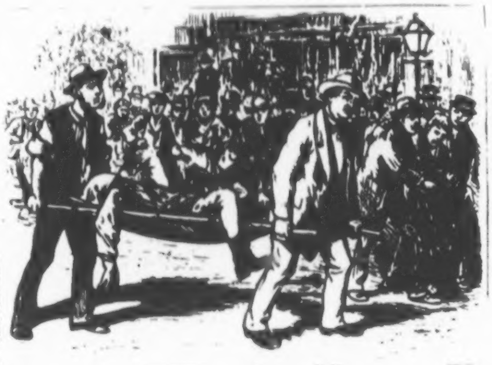
FRANK LESLIE'S
ILLUSTRATED
NEWSPAPER

Entered according to the Act of Congress, in the year [illegible], by Frank Leslie, in the Office of the Librarian of Congress at Washington.

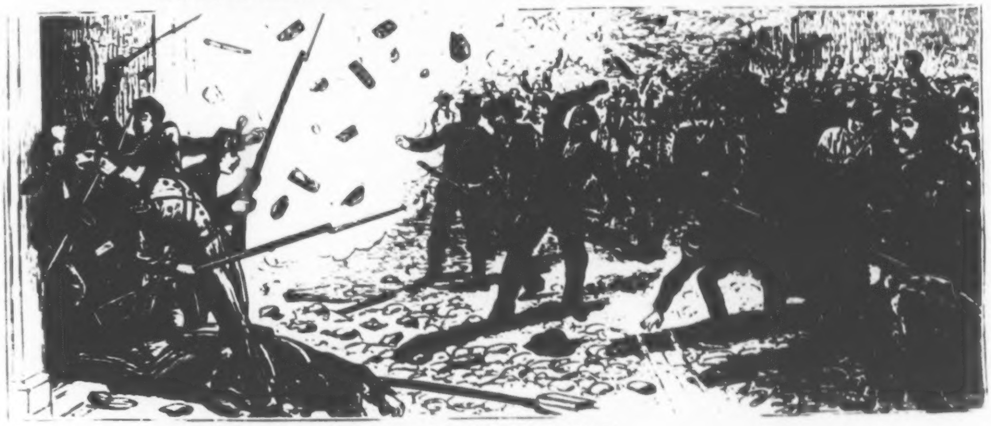
No. 1,140—Vol. XLIV.] NEW YORK, AUGUST 4, 1877. [Price, 10 Cents. [illegible]



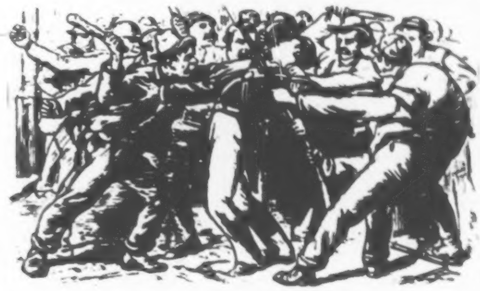
THE SCENE AFTER THE FIRST VOLLEY.



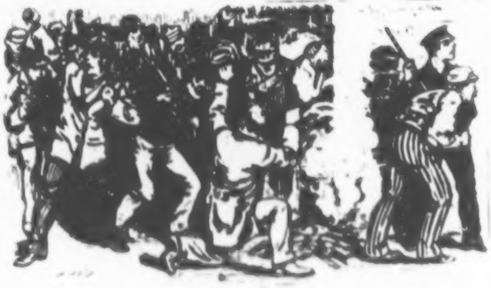
CARRYING OFF THE DEAD.



THE MOB ATTACKING THE SOLDIERS AT THE ARMORY.



THE MOB ASSAULTING A MEMBER OF THE SIXTH.



THE MOB FIRING THE CAMDEN STREET STATION.

MARYLAND.—THE BALTIMORE & OHIO RAILROAD STRIKE—SCENES AND INCIDENTS OF THE CONFLICT BETWEEN THE SYMPATHIZERS WITH THE STRIKERS AND THE FIFTH AND SIXTH REGIMENTS MARYLAND MILITIA, IN BALTIMORE, JULY 20th.—FROM SKETCHES BY OUR SPECIAL ARTISTS.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I:

PRIMARY SOURCE # 17 (Newspaper)

"Singing by Wire." *Baltimore Sun*, November 30, 1877, p. 4, col. D. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

"The Telephone." *Baltimore Sun*, December 18, 1877, p. 4, col. B. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

"A Telephone." *Baltimore Sun*, December 25, 1877, p. 4, col. B. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Articles describing early experiments with telephone and telegraph technology in Maryland
WHO?	Published by the *Baltimore Sun*
WHEN?	November 30, December 18, and December 25, 1877
WHERE?	Published in Baltimore; events occurred in Baltimore, New York, Philadelphia, and Washington, D.C.
WHY?	To report on the development and use of an emerging technology - the telephone

Description of the Source

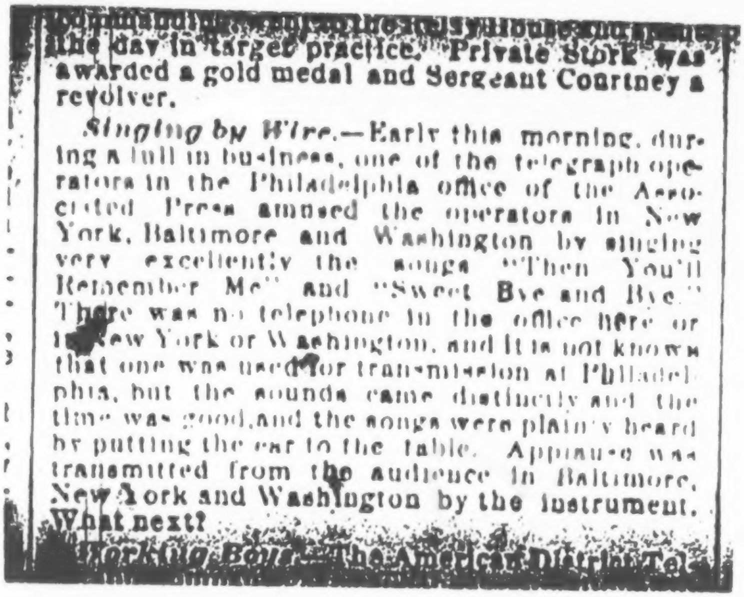
These articles include interesting details about the early use of the telephone. They suggest an important relationship between telegraph and telephone technology, and provide insights into the public's initial reaction to the telephone.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 396-397. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

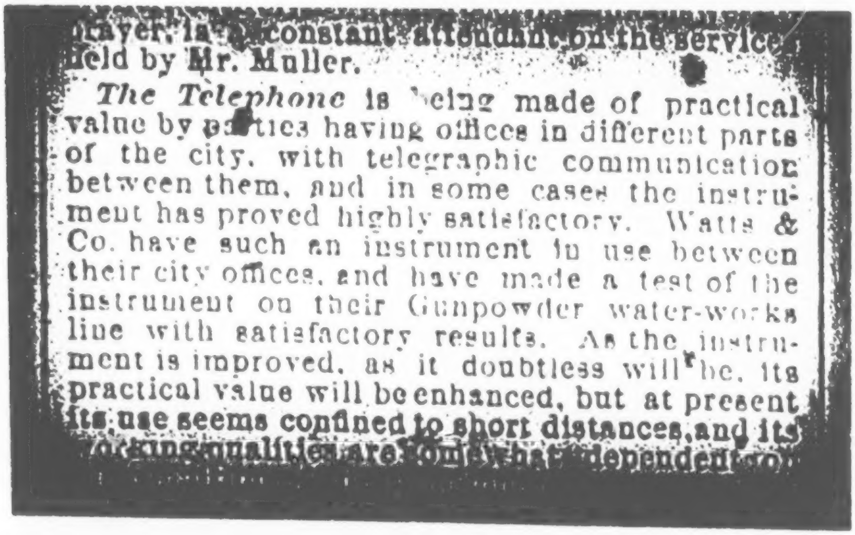
- What was the impetus for inventing the telephone?
- How did patents help to spur the industrial and technological revolution of the late 19th century?
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- Investigate the social and economic impact of the telephone on everyday life.
- Investigate the relationship between the telephone and the telegraph.



[illegible] the day in target practice. Private Stork was awarded a gold medal and Sergeant Courtney a revolver.

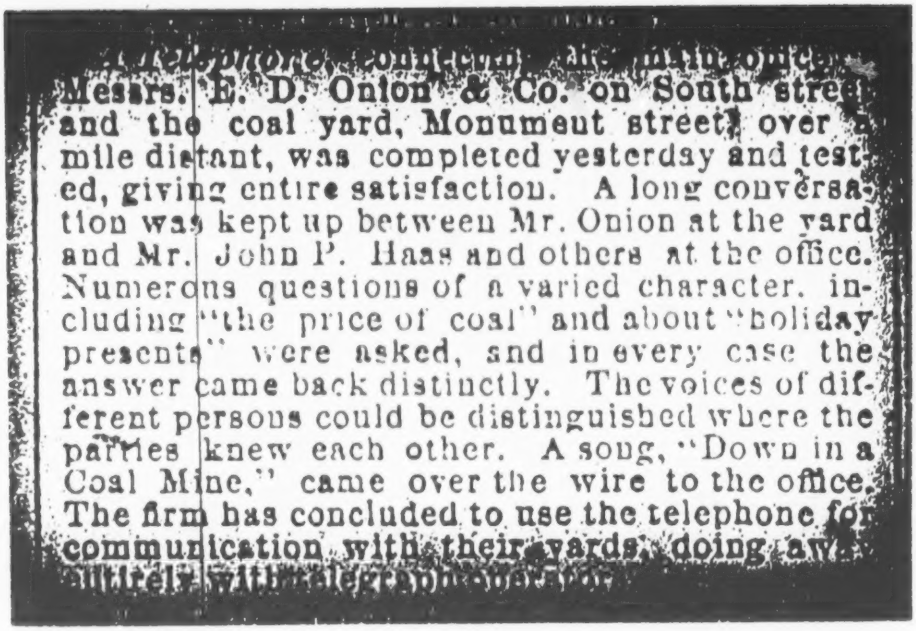
Singing by Wire.—Early this morning, during a lull in business, one of the telegraph operators in the Philadelphia office of the Associated Press amused the operators in New York, Baltimore and Washington by singing very excellently the songs "Then You'll Remember Me" and "Sweet Bye and Bye." There was no telephone in the office here or in New York or Washington, and it is not known that one was used for transmission at Philadelphia, but the sounds came distinctly and the time was good, and the songs were plainly heard by putting the ear to the table. Applause was transmitted from the audience in Baltimore, New York and Washington by the instrument. What next?

Working Boys.—The American District Tel



prayer, is a constant attendant on the service held by Mr. Muller.

The Telephone is being made of practical value by parties having offices in different parts of the city, with telegraphic communication between them, and in some cases the instrument has proved highly satisfactory. Watts & Co. have such an instrument in use between their city offices, and have made a test of the instrument on their Gunpowder water-works line with satisfactory results. As the instrument is improved, as it doubtless will be, its practical value will be enhanced, but at present its use seems confined to short distances, and its working qualities are somewhat dependent



A telephone connecting the main office of Messrs. E. D. Onion & Co. on South stree and the coal yard, Monument street, over a mile distant, was completed yesterday and tested, giving entire satisfaction. A long conversation was kept up between Mr. Onion at the yard and Mr. John P. Haas and others at the office. Numerous questions of a varied character, including "the price of coal" and about "holiday presents" were asked, and in every case the answer came back distinctly. The voices of different persons could be distinguished where the parties knew each other. A song, "Down in a Coal Mine," came over the wire to the office. The firm has concluded to use the telephone for communication with their yards, doing aw entirely with telegraph operator.

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

REF

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST Volume I: Science, Technology, and Invention in History

CONTEXT PAGE

PRIMARY SOURCE # 18 (Ad/Broadside)

"William Wilkens and Co., Manufacturers of Steam-Curled Hair and Bristles [c. 1882]." *Journal of Commerce and Manufacturers' Record*, p. 14. Advertisement. MB 1693. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Advertisement for William Wilkens and Co., manufacturers of steam-curled hair and bristles
WHO?	Published in the *Journal of Commerce and Manufacturers' Record*
WHEN?	c. 1882
WHERE?	Company is located in Baltimore
WHY?	To promote the products manufactured and sold by the company

Description of the Source

This full-page advertisement provides information on the company's locations, facilities, and products. William Wilkens and Co.'s business spanned a century and was at one point the largest of its kind in the world. The company steamed horsehair for use in manufacturing mattresses, upholstered furniture, and other products. This source could be interpreted as an ad/broadside or as a picture.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 310-311. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

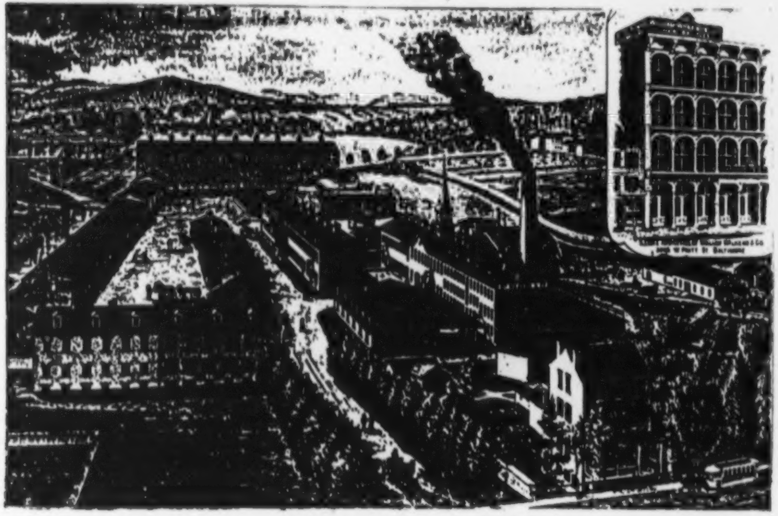
- How did geography influence the development of the factory system in the United States?
- What were labor conditions like in late 19th century factories?
- What role did women and immigrants play in the industrialization of the United States?
- Investigate the economic cycle of "boom and bust" in American industry.

PHILIP G. STRAUS COLL.

H. H. GRAUE,
300½ W. Pratt St., Baltimore.

LOUIS WILKENS,
117 Pearl St., New York.

WILLIAM WILKENS & CO.



MANUFACTURERS OF

STEAM-CURLED HAIR AND BRISTLES,

—DEALERS IN—

HAIR-CLOTH, DAMASK, PLUSH,

Upholsterers', Cabinet and Coachmakers' Material

—IN GENERAL,—

No. 300½ WEST PRATT STREET.

BALTIMORE, MD.

[illegible] CARONDELET AVENUE
ST. LOUIS.

[illegible] ARCHER AVENUE
CHICAGO.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 19 (Document)

Otis, George A. and Huntington, D. L. "Summary of Sixty-three Cases of Amputations of the Leg for Complicated Shot Injuries unattended by Fracture." In *The Medical and Surgical History of the War of the Rebellion*. Part III, Vol. II. Prepared under the direction of Joseph K. Barnes. Washington: Government Printing Office, 1883. RD 205.U5. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Table providing information on 63 leg amputations during the Civil War
WHO?	Prepared by George A. Otis and D. L. Huntington, Surgeons, United States Army, under the direction of Joseph K. Barnes, Surgeon General, United States Army
WHEN?	Published in 1883; amputations occurred between 1862 and 1865
WHERE?	Published in Washington, D.C.; amputees were from a variety of states
WHY?	To advance the study of medicine by presenting data from surgical and medical procedures performed during the Civil War

Description of the Source

This table is excerpted from one volume in a multi-volume series that presented a history of medicine and surgery during the Civil War. It was prepared by the United States government and includes information on injuries, operations, and results for 63 cases of amputation due to complicated shot injuries inflicted during the Civil War.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 284-305. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How far have medical technology and scientific knowledge advanced since the Revolutionary War?
- What medical advancements came out of the Civil War?
- Investigate medical training in the second half of the 19th century.
- How have wartime technologies found use during peacetime?
- What impact did technology have on sanitation and health in the 19th century?
- Investigate the history of medical practices in America.

THE
MEDICAL AND SURGICAL HISTORY
OF THE
WAR OF THE REBELLION.

PART III.

VOLUME II.

SURGICAL HISTORY.

Prepared, under the direction of JOSEPH K. BARNES, Surgeon General United States Army.
BY
GEORGE A. OTIS, SURGEON UNITED STATES ARMY,
AND
D. L. HUNTINGTON, SURGEON UNITED STATES ARMY.

SECOND ISSUE.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1883.

Amputations in the Leg.—Of sixty-three operations in this category thirty-three proved fatal, or 52.3 per cent. Two primary cases were successful; of twenty-four intermediary operations, seventeen, or 70.8 per cent., proved fatal; of thirty-seven secondary amputations, sixteen, or 43.2 per cent., proved fatal. The Museum possesses pathological specimens from some of the cases. Two of the cases are detailed, and all are enumerated in TABLE VIII:

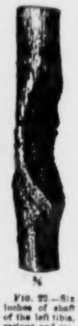


FIG. 22.—Six inches of shaft of the left tibia, carious and eroded. *Spec.* 859.

CASE 126.—The late Dr. Bodisco Williams, of Georgetown, D. C., who served in the Confederate Army, presented Acting Assistant Surgeon F. Schafhirt, of the Army Medical Museum, with the specimen figured below, with the accompanying history: "Rev. J. L——, a young priest from New Orleans, acting voluntarily as field chaplain, tried to persuade a company of Irish railway laborers to take up arms to fight against the Yankees in front of Fredericksburg, December 12, 1862; but during his speech a large shell exploded close in front of the group and killed three and wounded eight, including the priest, who received a small skin wound over the inner surface of the left tibia, about five inches above the tarsal articulation. Rev. L—— did not take much notice of the wound until the leg was in full inflammation up to the knee. He had returned to Lynchburg, where he applied bread and milk poultices for several weeks, but afterwards he sent for a physician, who exerted all his knowledge to save the leg. But nothing would avail, and caries of the bone having supervened, gangrene at last reminded the attendant of amputation, which was performed by Dr. Pearson, of Virginia, who took the leg off one inch below the tuberosity of the tibia, August 25, 1863. But even this remedy did not improve the physical health of the patient; and his soul left Lynchburg, September 2, 1863, for that great and blissful haven, it may be hoped, which he had promised to those Irishmen in front of Fredericksburg." The specimen represented in the adjacent wood-cut (FIG. 22) presents great erosion, as though from caustic applications made to arrest the progress of gangrene, and there are neighboring evidences of extensive periosteal thickening with osseous exudations and deposits. See *Cat. Surg. Sect., Army Medical Museum*, 1866, p. 394.

CASE 127.—Private G. Brown, Co. C, 97th Pennsylvania, aged 18 *years*, was wounded at Petersburg, June 17, 1864, and was admitted to hospital at Fort Monroe two days afterwards. Assistant Surgeon E. McClellan, U. S. A., reported: "Gunshot wound of right foot, flesh." From Fort Monroe the wounded man was transferred to Knight Hospital, New Haven, where amputation was performed but not recorded. Subsequently the patient was transferred to McDougall Hospital, and lastly, on January 19, 1865, to Central Park, New York City, whence Surgeon B. A. Clements, U. S. A., reported: "Gunshot wound of right foot; a minié ball passed through the metatarsus, entering on the dorsum of the foot. Mortification supervened and the condition of the injured parts became very bad; constitutional condition of patient feeble; loss of appetite; unable to sleep from pain in wound. On July 11th, amputation (apparently circular) of the leg just above the ankle joint was performed at the Knight Hospital, New Haven, by Acting Assistant Surgeon C. Lindsley. Two ligatures were applied, and ether was used as the anæsthetic. Healing progressed well for three weeks, when the stump sloughed, which was arrested in four or five days." The specimen represented in the annexed wood-cut (FIG. 23) was contributed by Acting Assistant Surgeon S. Teats, who performed re-amputation on April 10, 1865, on account of "a sloughing ulcer and a cold and blue condition of the stump." The stump healed at the end of five weeks after the last operation, and the patient was supplied with an artificial leg about two months afterwards. He was discharged from service August 17, 1865, and pensioned. In his application for commutation, dated 1875, the pensioner described the stump as being in good condition. He was paid his pension June 4, 1876.

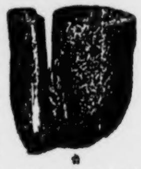


FIG. 23.—Two and a half inches of stump of right leg. *Spec.* 4329.

TABLE VIII.

Summary of Sixty-three Cases of Amputations of the Leg for Complicated Shot Injuries unattended by Fracture.

No.	NAME, MILITARY DESCRIPTION, AND AGE.	DATES.	INJURY, OPERATOR, AND RESULT.	No.	NAME, MILITARY DESCRIPTION, AND AGE.	DATES.	INJURY, OPERATOR, AND RESULT.
1	Addington, J., Serg't, A, 84th Indiana, age 23.	June 30, July 23, 1864.	Right ankle; gangrene; amputation leg by Surg. R. M. S. Jackson, U. S. V. Died Sept. 2, 1864, pyæmia.	6	Batherie, N. T., Corp'l, A, 15th Mass., age 34.	June 6, 24, '64.	Left leg; gang.; amp. leg by A. A. Surgeon M. F. Price; hæm. Died June 30, '64, asthenia from wound, and diarrhœa.
2	Ainsworth, W. H., Serg't, K, 43d New York, age 23.	May 6, June 20, 1864.	Right leg; amp. leg by Surg. W. D. Stewart, U. S. V. Disch'd Nov. 3, 1865.	7	Becker, H., Pt., F, 50th Penn., age 28.	May 9, Aug. 10, 1864.	Right leg; sloughing; amp. leg by A. A. Surgeon G. E. Galen. Disch'd May 22, 1865.
3	Alexander, E. J., Corp'l, D, 110th New York.	June 14, —, '63.	Right leg; amp. of leg. Died July 2, 1863.	8	Bell, J., Corp'l, G, 67th Penn., age 40.	Dec. 13, '62, Mar. 19, '63.	Left leg; sloughing; hæm.; amp. leg by A. A. Surg. F. H. Gerhell. Disch'd Dec. 14, 1863.
4	Bornum, C. F., Pt., E, 187th Penn., age 30.	June 18, Aug. 27, 1864.	Left leg; amp. leg by A. A. Surg. J. P. Arthur; hæm.; Sept. 7, amp. thigh. Died Oct. 13, 1864. *Spec.* 3132, A. M. M.	9	Bickley, H., Serg't, E, 10th New Jersey, age 21.	May 14, Aug. 13, 1864.	Left; slough; amp. leg by A. A. Surg. O. W. Webb; hæm. Died Aug. 23, '64. *Spec.* 3065, A. M. M.
5	Barron, C., Pt., D, 14th Connecticut, age 45.	May 12, Sept. 10, 1864.	Left foot; gang.; amp. leg by A. A. Surgeon S. Smith. Disch'd June 18, 1865.	10	Bloomer, A. S., Pt., G, 54th Ohio, age 29.	May 15, July 21, 1864.	Right foot; gang.; amp. leg by Ass't Surg. J. A. Freeman, U. S. V. Disch'd Feb. 10, 1865.

No.	Name, Military Description, and Age.	Dates.	Injury, Operator, and Result.
11	Brown, G., Pt., C, 97th Penn., age 18.	June 17, July 11, '64, Ap'l 16, '65.	Right foot; gang.; amp. just above ankle, by A. A. Surg. Lindsley; sloughing; reamp. leg. Disch'd Aug. 19, '65. *Spec.* 4129, A. M. M.
12	Burke, H., Serg't, C, 124th N. York, age 31.	June 1, Aug. 26, 1864.	Right leg; sloughing; amp. leg by A. A. Surgeon M. Lampen. Died Aug. 27, 1864, pyæmia.
13	Burley, M. D., Pt., G, 45th Penn., age 17.	May 6, Sept. 13, 1864.	Right leg; amp. leg, by A. A. Surg. H. Wilson; gang.; hæm. Disch'd Jan. 22, 1865.
14	Burns, T., Pt., D, 8th N. York H. Art'y, age 34.	June 17, 17, '64.	Right leg; amp. leg. Discharged June 20, 1865.
15	Case, E. F., Pt., G, 17th Michigan.	Sept. 19, 24, '63.	Left thigh, sev'g fem. art.; gang.; amp. below knee; gang. extend'g; Sept. 25, amp. at up. third thigh. Died Sept. 27, '63, gang.
16	Cousins, J. A., Corp'l, I, 1st Maine H'vy Art., age 24.	May 19, June 16, 1864.	Left foot; sloughing and erysipelas; flap amp. at up. third, by Dr. McConnor. Disch'd July 10, 1865.
17	Cross, G. P., Pt., F, 1st Mass. Heavy Artillery, age 19.	June 16, Aug. 19, 1864.	Right leg; gang.; hæm.; amp. leg by Surg. E. Bentley, U. S. V.; two ounces of blood injected into veins. Disch'd June 9, '65.
18	*Dixon, J. H.*, Pt., F, 26th N. Carolina, age 26.	Mar. 25, April 12, 1865.	Right leg; gang.; amp. leg by A. A. Surg. J. P. Arthur. Died May 4, 1865, exhaustion.
19	Downey, J., Pt., F, 99th Penn., age 20.	May 15, July 13, 1864.	Left leg; caries; amp. leg by Ass't Surg. H. T. Legler, U. S. V. Disch'd Sept. 7, 1864.
20	Emery, R., Pt., D, 5th Vermont, age 21.	M'y 5, '64, Aug. 29, 1865.	Left leg; gang.; hæm.; Aug. 4, 1864, post. tibial lig'n. Disch'd Dec. 16, '64; leg amp.
21	Gilbert, G. H., Lieut., B, 122d New York.	Nov. 9, Dec. 7, 1863.	Both feet contused by spent ball; gang. left foot; amp. left leg, by Surg. H. W. Ducachet, U. S. V. Disch'd May 23, 1864.
22	Gooch, A. B., Pt., F, 12th Ohio, age 21.	May 9, Nov. 19, 1864.	Left ankle; caries low. ant. joint; flap amp. mid. third, by Surg. N. Gay, U. S. V. Disch'd Feb. 13, 1865.
23	Goodell, E. D., Corp'l, D, 25th Massachusetts, age 21.	June 3, July 22, 1864.	Right foot; gangrene; amp. leg by A. A. Surg. R. F. Butcher. Disch'd Oct. 31, '65. *Spec.* 3032, A. M. M.
24	Goodrich, J., Pt., G, 169th N. York, age 40.	May 9, June 5, 1864.	Both ankles; gang.; amp. right leg by Ass't Surg. H. C. Roberts, U. S. V. Died June 5, '64, exh'n.
25	Green, J. A., Serg't, E, 2d Connecticut Art'y, age 23.	June 7, 20, '64.	Left foot; circ. amp. up. third leg, by A. A. Surg. P. Wilson. Died July 7, 1864, pyæmia.
26	Gutting, A., Pt., D, 11th Mich. Cavalry, age 26.	Oct. 2, Nov. 9, 1864.	Right leg; amp. leg by Surg. J. H. Murphy, U. S. A. Disch'd Sept. 14, 1865.
27	Hagey, J. D., Pt., I, 128th Penn., age 24.	April 2, May 19, 1863.	Left leg; artery opened; hæm. from post. tibial artery, art. tied, amp. leg, by A. A. Surg. H. A. Drane. Disch'd July 28, '63.
28	Harris, J. M., Corp'l, C, 16th Iowa, age 20.	July 15, 27, '64.	Right thigh; anterior sphacelus; ab'mal ext. probed; excess. hæm.; fem. tied; amp. leg, by A. A. Surg. R. W. Coale. Died Aug. 3, 1864, pyæmia.
29	Hays, A., Corp'l, F, 3d Delaware, age 29.	June 18, Aug. 10, 1864.	Right foot; slough'g ulcer; amp. leg, by A. A. Surgeon W. W. Sharpley. Disch'd May 18, '65. *Spec.* 3018, A. M. M.
30	James, A., Pt., I, 2d Tennessee Cavalry, age 20.	Dec. 17, '64, Feb. 4, '65.	Left ankle; ball removed; gang.; circ. amp. lower third leg, by Ass't Surg. W. B. Trull, U. S. V. Died May 16, 1865.
31	Kane, H., Pt., A, 24th Iowa, age 25.	Sept. 19, Dec. 20, 1864.	Left leg; gangrene; amp. leg by A. A. Surg. J. W. H. Baker. Discharged May 29, 1865.
32	[1]Knoble, H., Pt., D, 109th New York, age 27.	Nov. 27, Dec. 14, 1863.	Both thighs, ball impinging on sheath of left fem. artery; gang.; amp. left thigh. Died Jan. 14, '64, pyæmia. *Spec.* 2114, A. M. M.
33	Kunstler, J., Pt., H, 50th Penn., age 24.	June 19, July 23, 1864.	Right leg; sloughing; amp. leg, by A. A. Surg. E. K. Tell. Died Aug. 6, 1864, pyæmia.
34	Lamore, J., Pt., F, 63d Penn., age 23.	May 12, June 2, 1864.	Left leg; hæm.; amp. leg by A. A. Surg. John Priestley. Died June 13, '64, hæm. and pyæmia.
35	*L—— J——*, Chaplain (Reb'l).	Dec. 11, '62, Aug. 25, '63.	Left leg; gang.; amp. leg by Dr. Pearson. Died Sept. 2, 1863. *Spec.* 858, A. M. M.
36	McCurley, H., Pt., D, 1st Maine, age 18.	June 21, July 23, 1864.	Right ankle; gang.; circ. amp. mid. third by A. A. Surg. G. E. Brickett. Died Aug. 28, 1864, pyæmia.
37	Maguire, E., Pt., I, 9th Conn., age 26.	Sept. 29, 1864, Mar. 29, 1865.	Right leg; gang.; ulceration of ante. tibial art.; amp. leg by A. A. Surg. W. B. Casey. Disch'd Nov. 28, 1865.
38	Morgan, J., Pt., F, 93d Ohio, age 18.	July 20, 22, '64.	Left leg; amp. leg by Surg. H. K. Spooner, 61st Ohio; hæm.; lig. of anterior tibial artery Aug. 13, '64. Disch'd May 27, '65.
39	Mendenhall, J., Pt., B, 97th Penn., age 20.	May 20, July 22, 1864.	Right leg; sloughing; amp. leg by A. A. Surgeon A. D. Hall. Died July 29, 1864, pyæmia.
40	Moser, C., Pt., K, 5th Michigan, age 43.	June 16, July 19, 1864.	Left ankle and thigh; gang.; amp. leg by A. A. Surg. F. D. Weisse. Died July 26, 1864, pyæmia.
41	Moss, B. F., Corp'l, B, 101st Illinois, age 43.	July 23, Aug. 24, 1864.	Left leg; gang.; amp. leg by A. Surg. W. B. Trull, U. S. V.; diffused aneurism; hæm.; Nov. 11, amp. thigh; hæm.; Dec. 15, lig. fem. Disch'd June 25, 1865.
42	Mott, J., Pt., E, 105th Illinois, age 37.	June 26, July 26, 1864.	Left leg; slough ant. tibial; hæm.; amp. leg, by Ass't Surg. B. E. Fryer, U. S. A.; July 27, transfusion. Died Aug. 5, '64, hæm.
43	Paden, W., Corp'l, G, 10th Penn. Reserves, age 22.	May 23, June —, 1864.	Right thigh; May 29, 31, hæm.; June 1, femoral tied; amp. leg by Surg. G. L. Pancoast, U. S. V. Died June 29, 1864, gangrene.
44	Parmenter, J. D., Pt., G, 67th Penn., age 16.	April 6, June 21, 1865.	Left foot; gangrene and necrosis; amp. leg, by Surg. R. B. Bontecou, U. S. V. Disch'd Nov. 23, '65.
45	Prather, B., Corp'l, D, 102d Ohio, age 19.	Dec. 15, 27, '64.	Right foot; exc'n ball in post. tib. nerve; Dec. 26, amp. great toe; amp. leg, by A. A. Surg. S. G. Ayres. Died Dec. 29, '64, tetanus.
46	Read, J., Corp'l, F, 101st New York.	June, '62, intermediary.	Shot fract. w'nd of ank. joint; circ. amp. at junct. of low. third leg, by Ass't Surg. P. B. Connor, U. S. A. Died July 29, 1862.
47	*Ross, A. G.*, Corp'l, I, 13th Mississippi, age 21.	Oct. 19, Nov. 9, 1864.	Right fem. art. injured; also w'd of left thigh; gang.; lig. of fem.; amp. right leg three ins. above ankle. Retired March 14, 1865.
48	Saulsbury, W., Pt., E, 30th Colored Troops, age 38.	July 30, 1864, Jan. 19, 1865.	Right leg; sloughing; hæm. ant. tibial art.; art. lig. in w'nd; hæm. recurr'd; art. relig.; amp. leg by A. A. Surg. G. Stettler. Disch'd May 26, '65. Died July 16, '71.
49	Smith, W., Pt., D, 17th Infantry, age 22.	May 12, July 9, 1864.	Right ankle joint; suppurative inflam'n, caries; amp. leg, by A. Surg. A. Ingram, U. S. A. Died July 20, '64. *Spec.* 2863, A. M. M.
50	Stark, O. H., Serg't, H, 17th New Hampshire, age 30.	Sept. 29, Dec. 25, 1864.	Right; slough; amp. leg by A. A. Surg. H. H. James; sloug'g; Jan. 3, 1865, amp. thigh; hæm.; lig. Died Jan. 13, '65, pyæmia.
51	Stebbins, E., Serg't, L, 3d New York Cavalry, age 26.	Sept. 6, Oct. 12, 1862.	Left leg; hæm.; amp. leg. Discharged June 15, 1863.
52	Stoltz, G., Serg't, K, 5th New Jersey, age 26.	June 16, '64, Jan. 9, '65.	Left leg; gang. and necrosis; amp. leg by Surg. E. Bentley, U. S. V. Left hospital April 18, 1865.
53	Sullivan, D., Pt., F, 1st Penn. Rifles, age 23.	Dec. 13, 29, '62.	Left foot; extensive inflammation; amp. leg, by A. A. Surg. C. H. Bowen. Discharged.
54	Tawney, A., Pt., D, 74th Indiana, age 20.	Sept. 19, Nov. 20, 1863.	Left leg; hæm.; amp. leg by Surg. G. Grant, U. S. V.; gang. Died Dec. 6, 1863, gangrene.
55	Tewksbury, D., Pt., F, 73d Ohio, age 22.	July 2, '63, Ap'l 8, '64.	Left leg; gang.; amp. leg, by Surg. A. M. Speer, U. S. V. Died May 8, 1864, pyæmia.
56	Thompson, J. A., Corp'l, K, 10th Indiana, age 27.	Aug. 3, Sept. 3, 1864.	Left leg; gang.; amp. leg by A. A. Surg. A. L. Rice; hæm. from popliteal artery; artery tied. Died Oct. 4, 1864.
57	Thornton, R. M., Serg't, K, 4th Rhode Island, age 28.	July 30, Sept. 29, 1864.	Left leg; hæm.; amp. leg by A. Surgeon S. A. Orton, U. S. A. Disch'd January 29, 1865.
58	Tillotson, C. A., Pt., E, 30th Iowa, age 32.	Oct. 5, Dec. 23, 1864.	Right ankle; slough'g and hæm.; ant. post. flap amp. at mid. third by Ass't Surg. B. E. Fryer, U. S. A. Died Jan. 6, '65, pyæmia.
59	Tryon, N., Pt., E, 4th Ohio, age 26.	May 5, July 3, 1864.	Left foot; gang.; amp. leg by A. A. Surg. A. McLeichie. Died Aug. 10, 1864, asthenia.
60	Waren, D., Corp'l, 22d Massachusetts, age 31.	May 5, 20, '64.	Right leg; amp. leg by Surg. D. W. Bliss, U. S. V. Discharged October 25, 1864.
61	Williams, G., Pt., H, 39th Colored Troops, age 37.	Sept. 27, Oct. 22, 1864.	Left leg; hæm.; amp. leg by A. A. Surgeon J. H. Buchanan. Died Oct. 25, '64, exhaustion.
62	Wolf, C., Corp'l, D, 5th Minnesota, age 31.	Dec. 16, '64, Jan. 5, '65.	Left leg, also wound of right leg; amp. left leg, by A. A. Surg. L. E. Tracy. Died Jan. 19, 1865, gangrene.
63	Wright, E., Pt., F, 110th Penn., age 19.	May 5, 25, '64.	Right leg; cutting post. tibial art.; gang.; hæm.; May 22, lig.; hæm. recurr'd; amp. leg by Surg. E. Bentley, U. S. V. Died May 28, 1864, asthenia and pyæmia.

---

[1] LIDELL (J. A.), *Wounds of the Arteries*, in *Surg. Mem. of the War of the Rebellion, coll. and pub. by the U. S. San. Comm.*, 1870, Vol. 1, pp. 27, 551.

102

Maryland Historical Society Library

REF

Permission to reproduce for Educational Purposes

PRIMARY SOURCE # 19
Encountering Maryland's Past, Volume 1: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

PRIMARY SOURCE # 20 (Document)

"What's the News? [1883]." Claude Kooken Papers, MS.1886. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Song sheet from a school Christmas program
WHO?	Belonged to student Claude Kooken
WHEN?	December, 1883
WHERE?	Westernport Public School, Allegany County
WHY?	To provide entertainment for a holiday program

Description of the Source

This source provides the lyrics for songs to be sung at Westernport Public School's holiday program in December, 1883. In addition to more traditional Christmas carols, the program included "What's the News?" This song speaks of the future and technological progress, in particular the advent of the telegraph. This document is part of a collection of school papers from Claude Kooken's fifth and sixth grade years.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 259, 336. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how science, technology, and invention can influence the exchange of information and a sense of national unity.
- In what ways did Americans celebrate technological advancement in the late 19th century?
- How have Americans' attitudes toward technology changed through time?
- Investigate the relationship between the telephone and the telegraph.

WHAT'S THE NEWS?

Whene'er we meet, you always say,
What's the news?
What's the news?
Say, what's the order of the day?
What's the news?
What's the news?
Oh, we have good news to tell,
The public schools we love so well,
Are going now the song to swell,
That's the news,
That's the news.

This is an age of wondrous things,
That's the news,
That's the news;
Each day some new discovery brings,
That's the news,
That's the news;
Behold! the telegraphic chain—
The great Atlantic Cable train—
We've laid it once, and will again!
That's the news,
That's the news.

'Tis progress marks this age of gold,
That's the news,
That's the news;
The young will now eclipse the old,
That's the news,
That's the news;
So clear the track, ye "fogies old,"
Let "Young America" unfold
His "sparkling genius" uncontrol'd,
That's the news,
That's the news.

HARK! THE ALPINE HUNTER'S HORN.

Hark! the Alpine hunter's horn,
Tra, la, la, tra, la, la,
Wakes the echoes at the dawn,
Tra la la la la.
Following fast, and following far,
Thro' the icy mountain air,
Tra la la la la la la, tra la la,
Tra la la, tra la la la la la la,
Tra la la la la, La la la la la,
Where the agile chamois straying,
Fearless with their young are playing.

Clear the Alpine hunter's eye,
Tra la la, tra la la,
As the eagle seeks the sky!
Tra la la la la.
O'er the snowy mountain pass,
Light and free his footsteps pass,
Tra la la la la la la, tra la la,
Tra la la, tra la la la la la la,
Tra la la la la, La la la la la.
Fearful storms around him falling
Still he sounds his sweet recalling.

CHRISTMAS CAROL.

Hark, hark! the sweet, sweet chiming
Of merry Christmas bells!
Their low, melodious hymning
A wonderous story tells!
Beneath the stars that glisten
O'er distant Syrian plains,
The watching shepherds listen,
To clear angelic strains.

"To God the highest glory!"
While heavenly arches ring,
Responsive to the story
That Gabriel doth sing:
"The peace on earth, whose blessing
Shall bring good will to men;"
And in His name progressing,
Shall fill the world again!

And where the dawn is streaking
The eastern sky, afar,
They see the glory breaking
From off a new-born Star;
It shines above the manger
Wherein a babe is born,
And for that infant stranger
Archangels hail the morn!

No kingly crown awaits him,
No robe of Tyrian dye,
But heavenly choirs his praises
Are sounding through the sky!
For Bethlehem's lowly manger
The King of kings contains!
And Glory! Glory! Glory!
The Lord of all He reigns!

PRIMARY SOURCE # 21 (Document)

Bureau of Industrial Statistics and Information. "Strikes - By Years and Industries." In *Second Biennial Report of the Bureau of Industrial Statistics and Information, for the years 1886-87*. Annapolis, Maryland, 1888. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Table with data on Maryland labor strikes from a government report on industry
WHO?	Submitted by Thomas C. Weeks, Chief of Bureau of Industrial Statistics and Information, to His Excellency Elihu E. Jackson, Governor of the State of Maryland
WHEN?	Submitted January 1, 1888; includes data on strikes that occurred in the 1880s and general information on industry in Maryland for the years 1886 - 1887
WHERE?	Submitted in Annapolis, Maryland; includes industrial statistics for the entire state
WHY?	To update the Governor and General Assembly of Maryland on the work of the Bureau of Industrial Statistics and Information, and the status of industry in Maryland

Description of the Source

This excerpt provides information on strikes that occurred in Maryland between 1881 and 1887. For each strike, the table lists the industry, location, cause or goal, beginning and end dates, length, and the cost to employees and employers. A concluding table presents an overview of what workers gained from the strike, with before and after statistics on wages and working hours.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.344-350. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did technological development improve or worsen working conditions in Maryland industry?
- What were labor conditions like in late 19th century factories?
- What role did women and immigrants play in the industrialization of the United States?
- Investigate the economic cycle of "boom and bust" in American industry.
- What is the cost - both human and technological - of strikes?
- What gains have been achieved through strikes and other labor actions?
- How can technological development both create jobs and displace workers?

HF
.7M3
2

STATE OF MARYLAND.

OFFICE OF THE

BUREAU OF INDUSTRIAL STATISTICS AND INFORMATION.

ANNAPOLIS, MD., January 1, 1888.

TO HIS EXCELLENCY ELIHU E. JACKSON,
Governor of the State of Maryland.

SIR: I have the honor, herewith, to hand to your Excellency, for presentation to the General Assembly of Maryland, the Second Biennial Report of the Bureau of Industrial Statistics and Information, for the years 1886-87, in accordance with the provisions of Chap. 211, Acts of 1884.

Your obedient servant,

THOS. C. WEEKS,
Chief of Bureau.

I. STRIKES—BY YEARS AND INDUSTRIES.

INDUSTRIES AND YEARS.	LOCALITY.	CAUSE OR OBJECT.	Ordered by labor organization.	Establishments.		Beginning.	End.	Duration (days).	Succeeded.	Employes'.		Employers' loss.
				Number.	Days closed.					Loss.	Assistance.	
1881.												
Leather and Leather Goods—												
Harness makers	Baltimore	For increase of wages	Yes.	6	[illegible]	July [illegible]	Aug. [illegible], '81	[illegible]	No.	$ 4,000	$1,250	$ 2,500
Miscellaneous—												
Ice cutters	Port Deposit	Against reduct'n of wages.	No.	[illegible]	...	Jan. 11	Jan. 13, '81	2	Yes.	1,000	....	500
1882.												
Metals and Metallic Goods—												
Can makers	Baltimore	For increase of wages	No.	15	4	July 1	July 5, '82	4	Yes.	1,440	....	800
Can makers	Baltimore	For increase of wages	Yes.	15	5	Aug. 13	Aug. 17, '82	5	Yes.	2,250	1,000	8,000
Mining—												
Miners and drivers, coal	Barton & Westernport.	Against reduct'n of wages.	Yes.	4	163	Mar. 14	Aug. 24, '82	163	No.	58,500	2,510	50,000
Miners and drivers, coal	Frostburg	Against reduct'n of wages.	Yes.	8	163	Mar. 14	Aug. 24, '82	163	No.	157,500	2,675	115,000
Miners and drivers, coal	Lonaconing	Against reduct'n of wages.	Yes.	4	163	Mar. 14	Aug. 24, '82	163	No.	120,000	5,725	65,000
1883.												
Metals and Metallic Goods—												
Can makers	Baltimore	For increase of wages	Yes.	25	65	May 1	July 4, '83	65	Yes.	25,000	1,500	15,000
Mining—												
Drivers, coal	Lonaconing	For increase of wages	No.	1	2	Mar. 19	Mar. 21, '83	2	No.	1,000	....	300
Drivers, coal	Lonaconing	For increase of wages	No.	1	2	Mar. 19	Mar. 21, '83	2	No.	1,000	....	300
Stone Quarrying and Cutting—												
Stone cutters	Baltimore	For increase of wages	Yes.	4	20	Mar. 1	Mar. 21, '83	20	Partly.	5,000	5,000	5,000
Tobacco—												
Cigar makers	Baltimore	Against reduct'n of wages.	Yes.	1	22	Jan. 26	Feb. 17, '83	22	Yes.	150	4	75
Cigar makers	Baltimore	Against reduct'n of wages.	No.	1	10	Mar. 6	Mar. 16, '83	10	Partly.	650	250	300
Cigar makers	Baltimore	For increase of wages	Yes.	2	18	May 1	May 19, '83	18	Yes.	580	240	250
Cigar makers	Baltimore	Against reduct'n of wages	Yes.	1	7	Aug. 25	Sep. 1, '83	7	No.	50	13	20
Cigar makers	Baltimore	Against reduct'n of wages.	Yes.	1	14	Nov. 24	Dec. 8, '83	14	Yes.	400	117	200

I. STRIKES—BY YEARS AND INDUSTRIES—Continued.

INDUSTRIES AND YEARS.	LOCALTIY.	CAUSE OR OBJECT.	Ordered by labor organization.	Establishments.		Beginning.	End.	Duration (days).	Succeeded.	Employes'.		Employers' loss.
				Number.	Days closed.					Loss.	Assistance.	
1884.												
Boots and Shoes—												
Bottomers	Baltimore	Against reduct'n of wages.	No.	1	35	Feb. 5	Mar. 11,'84	35	Yes.	$ 2,500	$ 800	$ 1,000
Clothing—												
Tailors	Baltimore	For increase of wages	Yes.	1	..	Dec. 31	Mar. 1,'85	60	No.	9,000	1,800	3,000
Tobacco—												
Cigar makers	Baltimore	Against reduct'n of wages.	Yes.	1	6	Mar. 23	Mar. 29,'84	6	Yes.	20	5	10
Cigar makers	Baltimore	Against reduct'n of wages.	Yes.	1	..	Apr. 5	Apr. 12,'84	7	Yes.	21	6	....
1885.												
Food Preparations—												
Oyster shuckers	Annapolis	Against reduct'n of wages.	No.	4	..	Jan. 19	Mar. 2,'85	42	No.	5,000	3,000	2,000
Glass—												
Apprentices, bottle glass works.	Baltimore	Against discharge of 45 journeymen	No.	1	..	Feb. 1	Sept. 1,'85	212	Yes.	80,000	7,000	10,000
Employes, bottle glass works	Cumberland	Against apprentices doing journeymen's work	Yes.	1	21	July 16	Aug. 6,'85	21	No.	9,646	4,000	3,000
Metals and Metallic Goods—												
Can makers	Baltimore	For increase of wages	Yes.	23	30	Apr. 1	May 1,'85	30	Yes.	12,000	300	10,000
Moulders, stove foundry	Port Deposit	For increase of wages	No.	1	30	Apr. 6	May 6,'85	30	No.	2,216	250	5,000
Can makers	Baltimore	For increase of wages	Yes.	23	4	Sept. 1	Sept. 5,'85	4	Yes.	3,900	....	1,000
Shipbuilding, etc.—												
Carpenters and caulkers.	Baltimore	Against reduct'n of wages.	Yes.	6	276	Aug. 3	May 6,'86	276	Partly.	60,500	5,000	40,000
Stone Quarrying and Cutting—												
Stone cutters	Baltimore	For reduction of hours	Yes.	1	10	Mar. 9	Mar. 19,'85	10	Yes.	1,672	800	800
Miscellaneous—												
Employes, piano factory	Baltimore	For discharge of foreman.	Yes.	1	31	Dec. 17	Jan. 17,'86	31	Yes.	3,000	1,000	10,000
1886.												
Bricks—												
Employes	Baltimore	For increase of wages	Yes.	84	19	Apr. 1	Apr. 20,'86	19	Yes.	80,000	5,000	25,000

I. STRIKES—BY YEARS AND INDUSTRIES—Continued.

I[illegible]TRIES AND YEARS.	LOCALITY.	CAUSE OR OBJECT.	Ordered by labor organization.	Establishments.		Beginning.	End.	Duration (days).	Succeeded.	Employes'.		Employers' loss.
				Number.	Days closed.					Loss.	Assistance.	
1886—concluded.												
Building Trades—												
Carpenters	Baltimore	For reduct'n of hrs. & w'ges.	Yes.	50	29	May 8	June 1,'86	29	Partly.	$46,000	$ 5,000	$75,000
Furniture—												
Employes	Baltimore	For reduction of hours	Yes.	17	43	May 8	June15,'86	43	No.	80,000	3,500	18,000
Glass—												
Blowers, bottle glass works	Baltimore	Ag'nst incr'se of apprent'ce	Yes.	1	86	Sept. 1	Dec. 25,'86	86	No.	80,400	2,000	....
Metals and Metallic Goods—												
Employes, tin-can makers	Baltimore	For reduction of hours	Yes.	50	29	May 8	June 1,'86	29	Partly.	10,000	500	10,000
Employes, car, etc., works	Northeast	For increase of wages	Yes.	1	112	Aug. 5	Nov.26,'86	112	Yes.	44,840	3,000	....
Employes, rolling mills		For increase of wages	Yes.	11	72	Mar. 8	May 19,'86	72	No.	162,000	6,850	78,500
Mining—												
Miners, coal	Barton and vicinity	For increase of wages	No.	1	2	Mar. 1	Mar. 3,'86	2	No.	1,000	....	500
Public Ways Construction—												
Construction hands, railroad	Anne Arundel county	For increase of wages	No.	1	3	May 11	May 14,'86	3	Yes.	500	....	250
Construction hands, railroad	Annapolis											
Shipbuilding, etc.—												
Caulkers	Baltimore	For discharge of two non-union men	Yes.	1	1	Oct. 18	Oct. 19,'86	1	Yes.	36	....	....
Stone Quarrying and Cutting.												
Quarrymen, limestone	Texas	Against reduct'n of wages.	No.	1	69	Nov. 24	Feb. 1,'87	69	Yes.	1,842	1,350	2,000
Tobacco—												
Employes, cigar factory	Baltimore	For increase of wages	Yes.	45	..	June 14	Oct. 14,'86	122	Yes.	60,000	24,607	45,000
Transportation—												
Drivers, street railway	Baltimore	For increase of wages	Yes.	1	..	Apr. 14	Apr 28,'86	14	No.	1,875	600	10,000
Drivers, street railway	Baltimore	For increase of wages	Yes.	3	..	Apr. 15	Apr. 22,'86	7	Partly.	1,346	550	9,500
Stevedores	Baltimore	For increase of wages	No.	6	..	May 23	June 2,'86	6	No.	2,500	....	1,000

BEST COPY AVAILABLE

Maryland Historical Society Libr
201 W. Monument

REF

Reproduction Permission Gra
for Educational Purposes Onl

II. STRIKES—BY YEARS AND INDUSTRIES.

Industries and Years.	No. of Employes.						Average Daily Wages.				Employes Striking.			Employes Striking and Involved.			New Employes after Strike.			Brought from other places.	Weekly Working Hours.	
	Before Strike.			After Strike.			Before Strike.		After Strike.			Daily Pay.										
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Number.	Before.	After.	Male.	Female.	Total.	Male.	Female.	Total.		Before Strike.	After Strike.
1881.																						
Leather and Leather Goods—																						
Harness makers	175	....	175	175	....	175	$1 33	$.....	$1 33	$.....	125	$1 66	$1 66	175	....	175	....	....	......	....	60	60
Miscellaneous—																						
Ice cutters	675	....	675	675	....	675	1 50	......	1 50	......	550	1 50	1 50	550	....	550	....	....	......	...	60	60
1882.																						
Metals and Metallic Goods—																						
Can makers	300	....	300	300	....	300	1 20	......	1 50	......	300	1 20	1 50	300	....	300	....	....	......	....	60	60
Can makers	300	....	300	300	....	300	1 50	......	1 53	......	300	1 50	1 53	300	....	300	....	....	......	....	60	60
Mining—																						
Miners and Drivers, coal	585	....	585	585	....	585	1 85	......	1 50	......	477	2 24	1 60	585	....	585	....	....	......	....	60	60
Miners and Drivers, coal	1575	....	1575	1500	....	1500	1 85	......	1 50	......	1307	2 22	1 60	1575	....	1575	750	....	250	250	66	66
Miners and Drivers, coal	1230	....	1230	1196	....	1196	1 85	......	1 50	......	1100	2 22	1 60	1230	...	1230	....	....	......	....	63	63
1883.																						
Metals and Metallic Goods—																						
Can makers	525	....	525	525	....	525	1 20	......	1 45	......	525	1 20	1 [illegible]	525	....	525	...	....	......	....	60	60
Mining—																						
Drivers, coal	330	....	330	330	....	330	1 50	......	1 50	......	14	1 65	1 65	330	....	330	....	....	....	....	66	66
Drivers, coal	300	....	300	300	....	300	1 50	......	1 50	......	29	1 65	1 65	300	....	300	....	....	....	....	66	66
Stone Quarrying and Cutting—																						
Stone cutters	225	....	225	225	....	225	3 70	......	3 80	......	175	3 00	3 25	225	....	225	....	....	......	....	54	54
Tobacco—																						
Cigar makers	7	....	7	7	....	7	1 83	......	1 83	......	5	1 83	1 83	7	....	7	....	....	......	....	56	56
Cigar makers	50	....	50	50	....	50	1 33	......	1 37	......	30	1 60	1 45	50	....	50	....	....	......	....	60	60
Cigar makers	25	....	25	21	....	25	1 66	......	1 76	......	20	1 66	1 76	25	....	25	4	....	4	....	56	56
Cigar makers	5	....	5	5	....	5	1 66	......	1 50	......	4	1 66	1 50	5	....	5	4	....	4	....	56	56

II. STRIKES—BY YEARS AND INDUSTRIES—Continued.

Industries and Years.	No. of Employes.						Average Daily Wages.				Employes Striking.			Employes Striking and Involved.			New Employes after Strike.			Brought from other places.	Weekly Working Hours.	
	Before Strike.			After Strike.			Before Strike.		After Strike.			Daily Pay.										
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Number.	Before.	After.	Male.	Female.	Total.	Male.	Female.	Total.		Before Strike.	After Strike.
1883—Concluded.																						
Tobacco—																						
Cigar makers	22	....	22	22	....	22	$1 66	$.....	$1 66	$.....	22	$1 66	$1 66	22	....	22	....	....	......	....	56	56
1884.																						
Boots and Shoes—																						
Bottomers	70	20	90	50	20	70	1 33	83	1 50	1 00	42	1 33	1 50	70	20	90	....	....	......	....	60	60
Clothing—																						
Tailors	22	....	22	22	..	22	2 25	......	2 25	......	22	2 25	2 25	22	....	22	18	....	18	....	60	60
Tobacco—																						
Cigar makers	2	....	2	2	....	2	1 66	......	1 66	......	2	1 66	1 66	2	....	2	....	....	......	....	56	56
Cigar makers	5	1	6	5	1	6	1 66	1 66	1 66	1 66	2	1 66	1 66	2	....	2	....	....	......	...	56	56
1885.																						
Food Preparations—																						
Oyster shuckers	200	....	200	200	....	200	1 20	......	1 00	......	200	1 20	1 00	200	....	200	200	....	200	200	60	60
Glass—																						
Apprentices, bottle glass works	270	....	270	270	....	270	1 25	......	1 25	......	45	1 67	1 67	270	....	270	....	....	......	....	54	54
Employes, bottle glass works	100	....	100	100	....	100	1 47	......	1 20	......	100	1 47	1 47	100	....	100	100	....	100	100	60	60
Metals and Metallic Goods—																						
Can makers	650	....	650	650	....	650	1 10	......	1 33	......	650	1 10	1 33	650	....	650	....	....	......	....	60	60
Moulders, stove foundry	51	....	51	51	..	51	1 87	......	1 40	......	30	2 25	1 75	51	....	51	41	....	41	41	60	60
Can makers	650	....	650	650	....	650	1 50	......	1 87	......	650	1 50	1 87	650	....	650	....	....	......	....	60	60
Ship Building, etc.—																						
Carpenters and Caulkers	400	....	400	400	....	400	2 72	......	3 50	......	350	2 80	2 64	400	....	400	....	....	......	....	60	60
Stone Quarrying and Cutting—																						
Stone cutters	63	....	63	63	....	63	3 96	......	2 95	......	23	3 25	3 25	63	....	63	....	....	......	....	60	54
Miscellaneous—																						
Employes, piano factory	65	....	65	45	....	45	1 66	......	1 66	......	60	1 75	1 75	65	....	65	15	....	15	15	60	60

II. STRIKES—By Years and Industries—Concluded.

Industries and Years.	No. of Employes.						Average Daily Wages.				Employes Striking.			Employes Striking and Involved.			New Employes after Strike.				Weekly Working Hours.	
	Before Strike.			After Strike.			Before Strike.		After Strike.			Daily Pay.										
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Number.	Before.	After.	Male.	Female.	Total.	Male.	Female.	Total.	Brought from other places.	Before Strike.	After Strike.
1886.																						
Bricks—																						
Employes	3000	....	3000	3000	....	3000	$1 25	$	$1 63	.....	3000	$1 25	$1 63	3000	....	3000	....	....	....	....	60	60
Building Trades—																						
Carpenters	1000	....	1000	1000	....	1000	2 50	.....	2 50	.....	1000	2 50	2 50	1000	....	1000	150	....	150	150	60	54
Furniture—																						
Employes	500	....	500	500	....	500	1 33	.....	1 33	.....	500	1 33	1 33	500	....	500	....	....	....	....	60	60
Glass—																						
Blowers, bottle glass works	200	....	200	200	....	200	2 00	.....	2 00	.....	75	4 00	3 50	200	....	200	50	....	50	50	54	54
Metals and Metallic Goods—																						
Employes, tin, etc., works	275	....	275	275	....	275	2 00	.....	2 00	.....	275	2 00	2 00	275	....	275	25	....	25	25	60	54
Employes, rolling mill	300	....	300	300	....	300	1 60	.....	1 76	.....	300	1 60	1 76	300	....	300	30	....	30	30	60	60
Mining—																						
Miners, coal	3347	....	3347	3347	....	3347	1 50	.....	1 50	.....	2556	1 60	1 60	3347	....	3347	....	....	....	....	60	60
Public Ways Construction—																						
Construction hands, railroad	500	....	500	500	....	500	1 00	.....	1 00	.....	500	1 00	1 00	500	....	500	25	....	25	25	60	60
Construction hands, railroad	100	....	100	100	....	100	1 00	.....	1 25	.....	100	1 00	1 25	100	....	100	....	....	....	....	60	60
Ship Building, etc.—																						
Caulkers	12	....	12	12	....	12	3 00	.....	3 00	.....	10	3 00	3 00	10	....	10	2	....	2	....	60	60
Stone Quarrying and Cutting—																						
Quarrymen, limestone	30	....	30	10	....	10	1 05	.....	1 05	.....	30	1 05	1 05	30	....	30	....	....	....	....	60	60
Tobacco—																						
Employes, cigar factory	400	....	400	393	7	400	1 50	.....	1 62	1 00	400	1 50	1 62	400	....	400	120	7	127	127	54	48
Transportation—																						
Drivers, street railway	125	....	125	125	....	125	1 50	.....	1 50	.....	75	1 50	1 50	75	....	75	75	....	75	75	84	84
Drivers, street railway	235	....	235	235	....	235	1 60	.....	1 65	.....	127	1 51	1 63	127	....	127	....	....	....	....	84	84
Stevedores	350	....	350	350	....	350	2 00	.....	2 00	.....	350	2 00	2 00	350	....	350	100	....	100	....	60	60

I. LOCK-OUTS.

Industries and Years	Locality.	Cause or Object.	Ordered by organization.	Establishments.		Beginning.	End.	Duration (days).	Succeeded.	Employes'		Employers' loss.
				Number.	Days closed.					Loss.	Assistance.	
1882.												
Glass—												
Employes, window-glass works	Baltimore	Against demand for increase of wages	Yes.	8	78	Sept. 1	Feb. 2,'83	154	No.	$38,000	$22,000	$20,500
Employes, window-glass works	Baltimore	Against demand for increase of wages	Yes.	1	91	Sept. 1	Dec. 1,'82	91	Yes.	9,000	5,000	5,000
1884.												
Tobacco—												
Cigar makers	Baltimore	On account of refusal to allow firm to use International Union label	Yes.	1	14	July 23	Aug. 23,'84	31	Yes.	90	....	80
Cigar makers	Baltimore	On account of refusal to allow firm to use International Union label	Yes.	1	14	Sept. 5	Sept. 19,'84	14	No.	72	25	40
1886.												
Glass—												
Employes, window-glass works	Baltimore	Against a demand for increase of wages and to enforce reduction of wages	Yes.	1	30	Sept. 1	Oct. 1,'86	30	No.	6,500	....	....

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

REF

Reproduction Permission Granted
for Educational Purposes Only

PRIMARY SOURCE # 22 (Ad/Broadside)

Gamse, H. and Brothers. "Tolchester Beach, MD. [c. 1895]." Color lithograph broadside. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Poster advertising the resort of Tolchester Beach, Maryland
WHO?	Printed by H. Gamse and Brothers for the Tolchester Company
WHEN?	c. 1895
WHERE?	Printed in Baltimore; advertises beach resort located in Kent County on Maryland's Eastern Shore
WHY?	To persuade people to take a day excursion aboard a Tolchester Company steamboat to the Tolchester Beach resort

Description of the Source

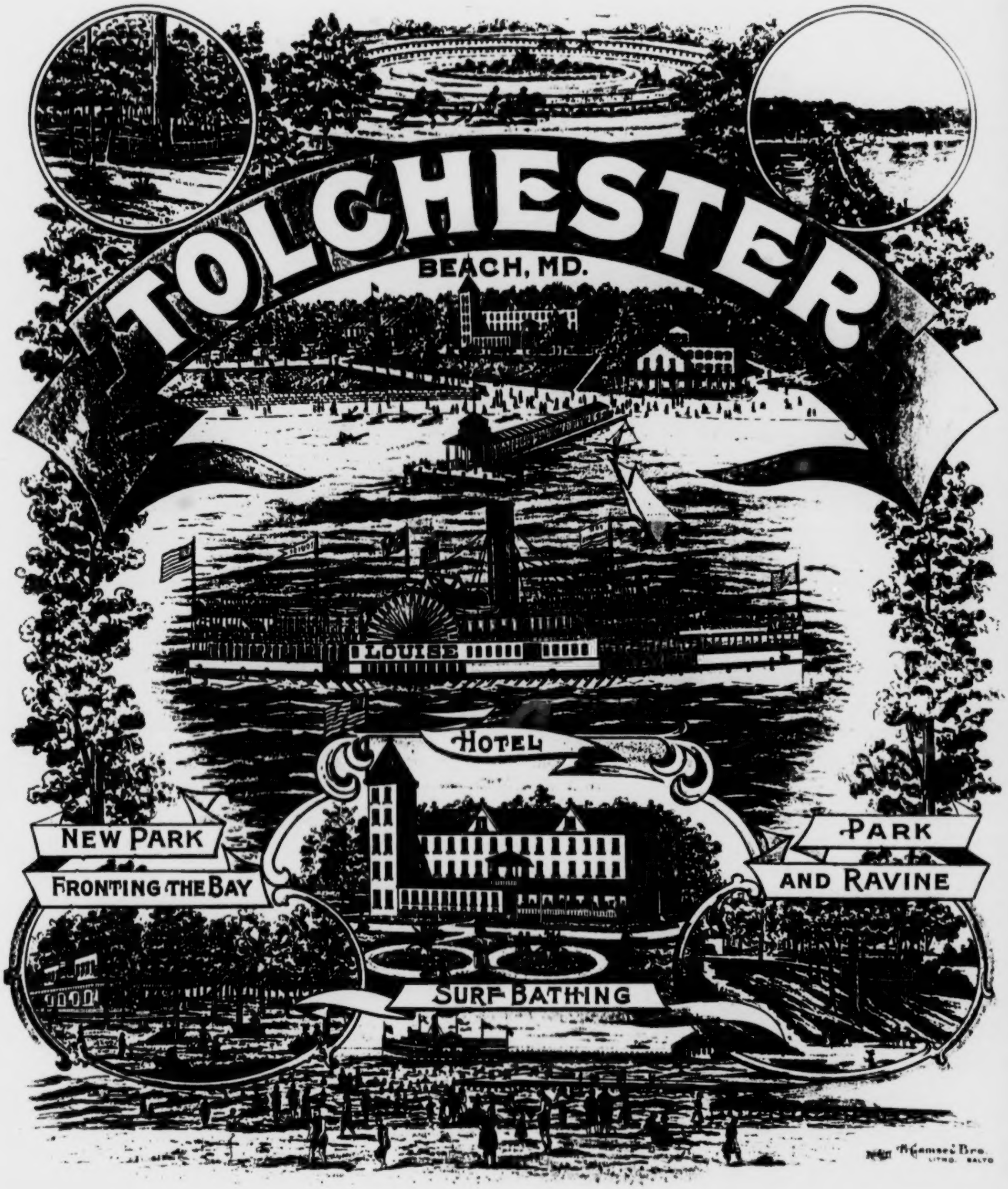
This broadside promotes trips to Tolchester Beach, a nearby Eastern Shore resort that opened in 1877. It presents, in a visual way, all of the fun activities available at this turn-of-the-century vacation spot. Baltimoreans could board a steamboat destined for Tolchester Beach at the Light Street wharves.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 366-370. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did developments in transportation technology affect the relationship between the eastern and western shores of Maryland?
- How has the development of steam power impacted transportation and industry?
- How have different technologies of transportation influenced recreation and the movement of goods and services?
- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- How did steamboats and railways contribute to the development of waterfront properties?
- How did the introduction of steam power affect the port of Baltimore and Maryland?
- Investigate the social and economic impact of transportation change on everyday life.
- How has technology impacted the development of popular entertainment?


TOLCHESTER
BEACH, MD.
LOUISE
HOTEL
NEW PARK
FRONTING THE BAY
PARK
AND RAVINE
SURF BATHING
A. Gamse & Bro.
LITHO. BALTO

BEST COPY AVAILABLE

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 23 (Document)

Bureau of Industrial Statistics. "Cost of the Strike." In *Third Annual Report of the Bureau of Industrial Statistics of Maryland. 1895.* Baltimore: The Sun Book and Job Printing Office, 1895. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Account of coal miners' strike from a government report on industry
WHO?	Submitted by A.B. Howard, Jr., Chief of the Bureau of Industrial Statistics of Maryland, to the Governor of the State of Maryland
WHEN?	Submitted in 1895; includes information on industry in Maryland for the year 1895
WHERE?	Printed in Baltimore; includes information on a strike that occurred in Allegany County and industrial statistics for the entire state
WHY?	To update the Governor and General Assembly of Maryland on the work of the Bureau of Industrial Statistics, and the status of industry in Maryland

Description of the Source

This excerpt provides information on the costs to employees, employers, and the government of a coal miners' strike that occurred in western Maryland in 1895. The account notes that this was the first labor strike in Maryland since 1886, and the first since the "great railroad strike of 1877," to necessitate the calling out of the State militia.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 336-341, 344-345. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- What were labor conditions like in late 19th century industry?
- Investigate the economic cycle of "boom and bust" in American industry.
- What is the cost - both human and technological - of strikes?
- What gains have been achieved through strikes and other labor actions?
- Investigate the role of technology in the coal-mining industry through time.
- How can technological development both create jobs and displace workers?
- Why has the American government become involved in labor disputes in transportation and industry?

THIRD ANNUAL REPORT

OF THE

BUREAU

OF

INDUSTRIAL STATISTICS

OF MARYLAND.

1895.

A. B. HOWARD, Jr., Chief of Bureau.

BALTIMORE:
The Sun Book and Job Printing Office.
1895.

115

PRIMARY SOURCE # 23
Encountering Maryland's Past, Volume I: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

REF

Maryland Historical Society Library
Monument St., Baltimore, MD 21201

Reproduction Permission Granted
for Educational Purposes Only

A complaint sometimes heard among the miners is that cars, for the reception of the coal they mine, are not furnished as fast as needed. Though $2 a day could be made at the forty-cent rate, providing the cars are furnished as fast as a miner can fill them, when but one car a day is furnished him he can make but eighty cents. This further deduction was particularly aggravating, and in view of the hazardous character of his employment, seems, indeed, but small compensation. For a miner, when he leaves his family in the morning, never knows if he will see them again, and this very fact makes the insurance companies refuse to take risks upon his life; while, on the other hand, his extremely low wages precludes the possibility of his saving anything for the support of his family in the event of his death.

Notwithstanding the public discussion of these different grievances in the newspapers and elsewhere, there was still a very strong public sentiment manifested against the strike. Indeed, many of the miners themselves were prepared at all times during the strike to continue at work, and in the case of the Hoffman, Eckhart and Allegany mines ,a considerable number did remain.

This fact eventually ended the strike, for attempts to prevent these men from going to work caused a collision between the strikers and those who were opposed to them; this resulted in the county authorities being called upon to preserve order, and finally caused an appeal to be made by the sheriff and State's Attorney to the Governor for troops to suppress a state of disorder, either existing or anticipated, and from that moment the strike was broken, though it was not declared off until several weeks later, June 27.

COST OF THE STRIKE.

This is, in brief, the story of the only strike in this region since 1886, and the only strike since the great railroad strike of 1877, which necessitated the calling out of the State militia as a result of labor troubles. Some of the most important incidents connected therewith are also given in the following pages, which may prove interesting to those ho are students of these subjects as well as those who only a passing interest therein.

duration of the strike was just twenty-seven working d involved from 3,500 to 3,700 miners; the loss in

wages was between $150,000 and $200,000. The amount cannot be definitely stated, as the miners all work on the piece-work system, and it is impossible to say what would have been the production if the strike had not taken place.

The losses sustained by the railroads, operators and mine owners cannot be even approximately stated, as this loss is so inextricably mixed up on their books with other losses as to render it impossible to state what they were.

The expense to the State, according to the report of the Adjutant General, was $56,828.16, and included the cost of transporting and maintaining the troops, although he states that "there are some expenses not yet in or paid," which will make the aggregate "something over $57,000." In this connection it is proper to consider that the State encampment costs from $30,000 to $32,000. The encampment was abandoned, however, in consequence of the strike because of the great expense it would have entailed. So that the actual cost to the State was the difference between the expense of sending the troops to the coal region and the cost of a State encampment, or in round numbers, about $25,000.

It has been impossible to obtain, definitely, the cost to Allegany county. The clerk to the County Commissioners estimates that about $4,700 in round numbers will nearly cover the expense, including the cost of all the court trials which were an outgrowth of the strike.

MINES AND MINE OWNERS.

The Maryland coal region in which this strike took place lies in the valley of George's Creek, Allegany county, extending from Frostburg some twelve or fourteen miles in a southwesterly direction to the mouth of the creek at Westernport, on the Potomac river, opposite Piedmont. The shape of the George's Creek basin has been compared to a canoe, the bow at Frostburg and the stern at Westernport. The western side is the Great Savage Mountain and Dan's Mountain is the other side. Underlying the sides and bottom of the basin are various coal measures in layers like a jelly cake, and extending down hundreds of feet below the surface. The vein is from twelve to eighteen feet in thickness and furnishes what is known as George's Creek or Cumberland coal. The lower and smaller are not worked, and probably will not be until the big vein is exhausted, as the quality is inferior and more expensive to mine.

PRIMARY SOURCE # 24 (Document)

Chesapeake and Potomac Telephone Company. "Pay Station Contract of the Chesapeake and Potomac Telephone Company of Baltimore City [1 August 1897]." VF. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Contract to install a telephone pay station at a business
WHO?	Pay phone to be installed by the Chesapeake and Potomac Telephone Company at Castiglione and Company, Druggists
WHEN?	Signed August 1, 1897
WHERE?	Signed in Baltimore; pay phone to be located at the business of Castiglione and Company at Eutaw Place and McMechen Street in Baltimore
WHY?	To set up terms for the installation and use of a telephone pay station

Description of the Source

This contract is an agreement between the Chesapeake and Potomac Telephone Company and Castiglione and Company to install a pay phone at Castiglione and Company. The telephone company is responsible for all installation costs; Castiglione and Company agrees to care for the telephone equipment, and will receive 10 % of all receipts for calls within Maryland. They will receive two cents for long-distance calls outside the state of Maryland.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 396-397. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how science, technology, and invention can influence the exchange of information and a sense of national unity.
- How can technological development both create jobs and displace workers?
- What strategies have businesses employed to expand the use of new technologies?
- Investigate how new technologies have been promoted and sold to the public.
- Investigate the relationship between the telephone and telegraph.
- Investigate the social and economic impact of the telephone on everyday life.

PROPERTY OF
THE HISTORICAL SOCIETY
OF CECIL COUNTY

One No 20 Booth

Form C. 7-1-97-200. Automatic Pay Sta. Contract.

PAY STATION CONTRACT

OF

THE CHESAPEAKE AND POTOMAC TELEPHONE COMPANY

OF BALTIMORE CITY. ~~Service begins~~ Aug 1/97

THIS AGREEMENT, made this first day of August 1897 by and between The Chesapeake and Potomac Telephone Company of Baltimore City, Party of the First Part, hereinafter designated as the Company, and Castiglione and Company Party of the Second Part, hereinafter designated as the subscriber.

WITNESSETH :

That it has been agreed between the parties hereto that the Company may and will establish a Telephone Pay Station on the premises of the subscriber, situated in Baltimore, Maryland, at Eutaw Place & Mc Mechen St upon the considerations and on the terms following :

1. The Company shall, at its own cost and expense, place on said premises, the following special telephone equipment, that is to say, one magneto telephone, one "solid back" battery transmitter with necessary battery, one magneto call bell with automatic telephone switch, and automatic collecting device, and connect the same by means of a complete metallic circuit, consisting of two wires, with the Company's Exchange at Baltimore, Maryland, and bear the expense of all ordinary maintenance and repairs.

2. The subscriber hereby agrees to take charge of and care for the said telephone equipment while it remains on his said premises.

~~If the aggregate of the said receipts for messages to points in the City of Baltimore and to points in the State of Maryland outside of said City, in any one month, shall be less than dollars, then the said subscriber agrees to pay, and shall pay, to the said Company, a sum sufficient to make the aggregate gross receipts for messages to points in the City of Baltimore and to points in the State of Maryland outside of said City, during such month, equal to dollars.~~

The messages sent and conversation had by the subscriber on his own account or business shall be subject to the same rules, regulations, terms, conditions and stipulations, and shall be paid for by him at the same rates, as messages sent or conversation had for or by any one else.

In consideration of the services and undertakings herein, on the part of the subscriber, the Company hereby agrees to allow the subscriber, as compensation for such service and undertakings, ten per cent. of the receipts on all calls made through said telephone to points in the City of Baltimore and to points in the State of Maryland outside of said city, and two cents on every long-distance telephone connection from the said telephone, during the continuance of this contract, to points outside the State of Maryland, including the District of Columbia.

It is further agreed between the parties hereto that the record kept by said Company of the calls made through said telephone shall be conclusive evidence between them of the number of calls made through said telephone.

3. It is further agreed between the parties hereto that the arrangement and agreement hereby made between them is made for One year from the day of the date hereof, but shall continue in force from month to month thereafter, unless notice is given by one of the said parties to the other, ten days before the expiration of the month of the desire of such party to terminate said arrangement. But the Company hereby reserves the right to terminate this contract at any time upon non-payment of any sum due under this contract, or any other contract hereafter made between the parties hereto with respect to the telephone hereby agreed to be placed on the premises of the subscriber, or in case of any improper use of the said instruments, or contrary hereto, or of any removal thereof without the permission of the Company, or if, and whenever the subscriber shall fail or neglect to give such attention to, or perform such service for, the public, as may be satisfactory to the Company, or whenever, by the operation or terms of any law or ordinance, the Company shall become embarrassed in the maintenance of the line, or in any other particular; and upon the termination of said agreement or arrangement, whensoever occurring, the Company shall have the right to remove, at its own cost and expense, the said telephone equipment from the premises of the subscriber; and for such purpose the Company, or its servants, shall have the right to enter in and upon said premises.

4. It is expressly understood and agreed that the subscriber shall have no claim against the Company for any service whatever, whether otherwise or in canvassing for business or calling for patrons, or in conducting conversations for any of his patrons, or otherwise; it shall not, however, be obligatory upon the subscriber to conduct any such conversation for any of his patrons whenever it would interfere with his other business so to do. Before the subscriber conducts any conversation for any of his patrons he shall first secure from such patron his or her signature to a release from and of any and all claim for damages which might arise by reason of any mistake in conducting such conversation, using in each case a printed form to be furnished by the Company for the purpose.

5. The instruments furnished by the Company hereunder, are the property of The American Bell Telephone Company, are constructed and used under said Company's patents, and are leased and licensed by authority of said Company only for the uses herein specifically allowed; and any use otherwise or without the payments herein provided to be made, is, and will be an injury to, and an invasion of the rights of the said The American Bell Telephone Company; and also an injury to, and an invasion of the rights of the said The Chesapeake and Potomac Telephone Company of Baltimore City, entitling either or both of said Companies to an injunction, and to other redress at law or in equity in a suit or other proceeding to be instituted and prosecuted in the name of either of said Companies, or in their names jointly, and entitling each and both of said Companies to any and all other lawful remedies, whether by resuming possession of the instruments and lines, and collecting the tolls due or to become due, or otherwise.

6. The telephone equipment aforesaid is placed on the premises of the subscriber for public use by him, as hereinbefore provided; and is to be under the control of the Company and subject to the inspection of its agents or servants at any and all times. The subscriber agrees to pay five dollars for each telephone or call box destroyed otherwise than by unavoidable accident, and ten dollars per month in case of unauthorised detention or removal of any telephone or call box, until the destruction or the loss thereof without his fault is satisfactorily proved by him; but such payment shall not confer any title to such instrument, or the right to use it. No instrument or appliance of any kind whatsoever not furnished by the Company shall be attached to or used in connection with, the instruments furnished by the Company, without the consent in writing of the Company first obtained therefor; and no instrument furnished by the Company shall be used in connection with any such unauthorized instrument or appliance. The Company will, during the continuance of this contract, remove the instruments from place to place within the territory covered by the Exchange lines of Baltimore, upon request, and payment of the expense thereof.

WITNESS, the signature of the President of the Party of the First Part, and the signature of the Party of the Second Part.

Signed at Baltimore, Md., August 1 1897

Name Castiglione & Co

Business [illegible]

Accepted by The Chesapeake and Potomac Telephone Company of Baltimore City,

President.

119

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 25 (Picture)

Bureau of Statistics and Information. Photographs of "A Sample Sweatshop" and a "Model Sweatshop Now Maintained Under the Law." In *Thirteenth Annual Report of the Bureau of Statistics and Information of Maryland. 1904*, 33 and 69. Baltimore: Kohn and Pollock, 1905. MHA 37.U7. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photographs of Baltimore sweatshops from a government report on industry
WHO?	Submitted by Charles J. Fox, Chief of Bureau of Statistics and Information of Maryland, to His Excellency Edwin Warfield, Governor of the State of Maryland
WHEN?	Submitted February 28, 1905; includes information on industry in Maryland for the year 1904
WHERE?	Submitted in Baltimore; includes industrial statistics for the entire state
WHY?	To update the Governor and General Assembly of Maryland on the work of the Bureau of Statistics and Information, and the status of industry in Maryland

Description of the Source

These two photographs are illustrations in a piece that takes a critical look at working conditions in Baltimore sweatshops. The article exposes substandard working conditions and advocates for increased state regulation of sweatshops. The two photographs provide contrasting views of two workplaces: an unregulated sweatshop and one in compliance with the law.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 344, 350-351, 413-415. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did technological development improve or worsen working conditions in industry?
- What were labor conditions like in late 19th century industry?
- Investigate the history of sweatshops in America.
- What role did women and immigrants play in the industrialization of the United States?
- Investigate the economic cycle of "boom and bust" in American industry.
- How can technological development both create jobs and displace workers?
- Investigate how city, state, and national governments have sought to promote public health.
- How did technology influence the development of sweatshops?

THIRTEENTH ANNUAL REPORT

OF THE

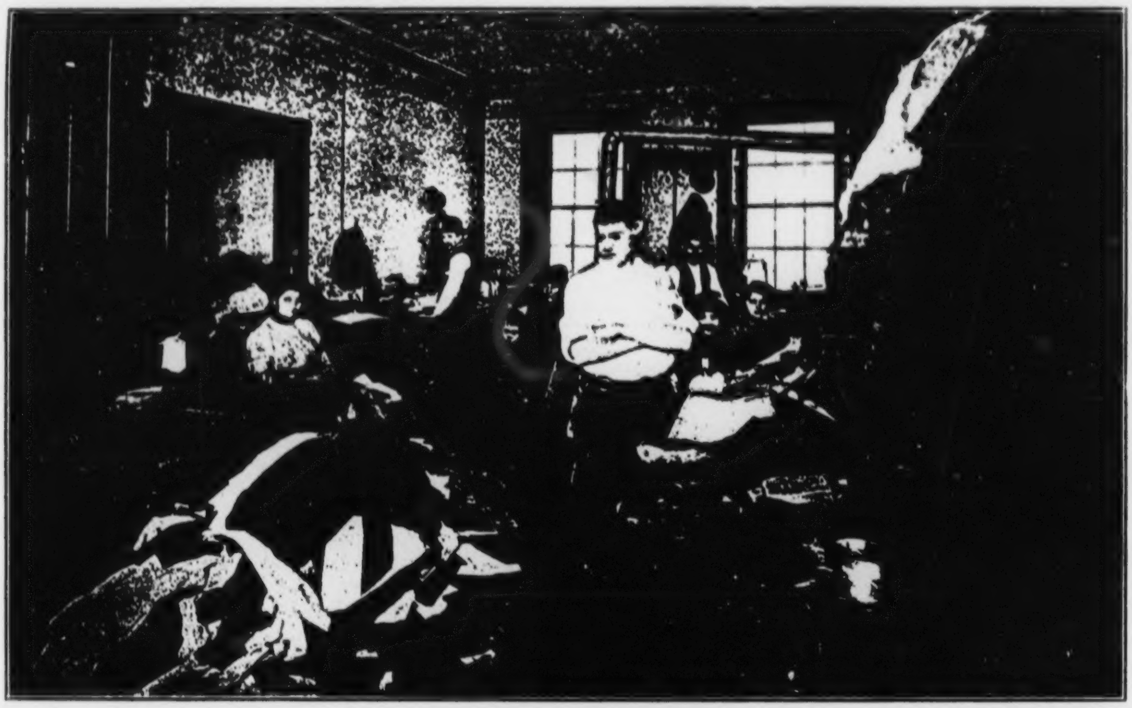
BUREAU OF STATISTICS AND INFORMATION OF MARYLAND.

1904.

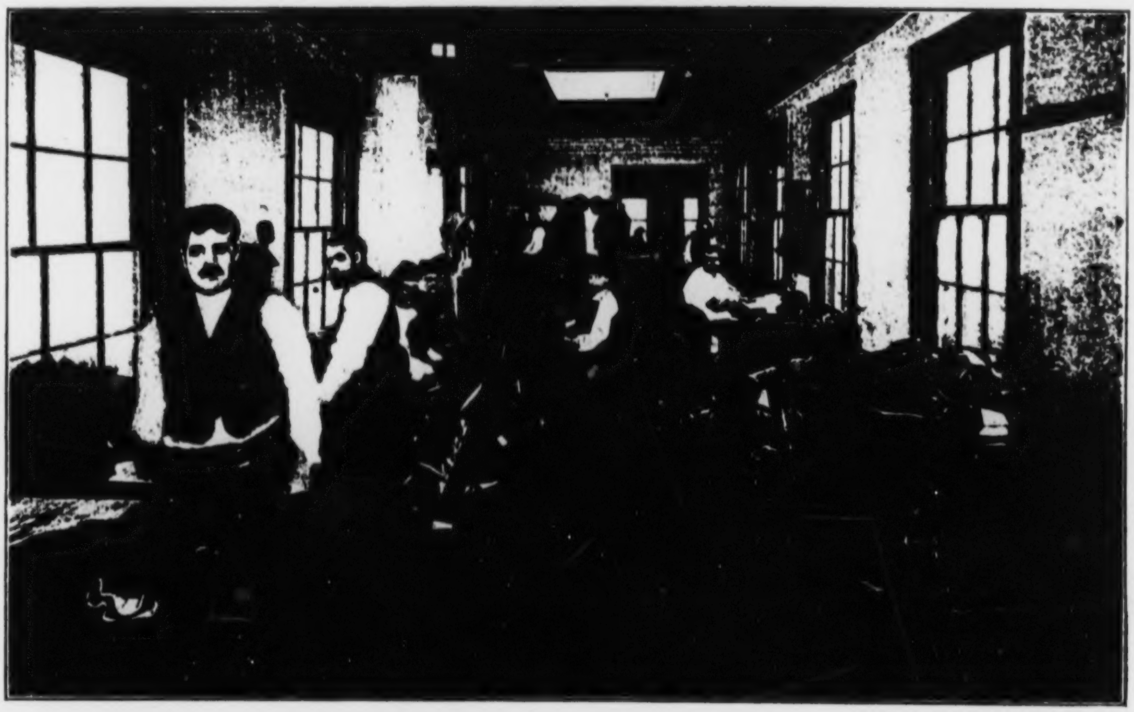
CHARLES J. FOX, Chief.

EQUITABLE BUILDING,
BALTIMORE, MD.

KOHN & POLLOCK,
315 and 317 WEST GERMAN STREET,
BALTIMORE, MARYLAND.



A SAMPLE SWEATSHOP.



MODEL SWEATSHOP NOW MAINTAINED UNDER THE LAW.

Maryland Historical Society Library
201 W Monument St Baltimore, MD 21201

RFF

PRIMARY SOURCE # 25
Encountering Maryland's Past, Volume 1: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST Volume I: Science, Technology, and Invention in History CONTEXT PAGE

PRIMARY SOURCE # 26 (Ad/Broadside)

Vacuum Sanitary Carpet Cleaning Co. "No Fuss! No Muss! No Dust! The New Vacuum System House-cleaning [1911]." Broadside Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	A broadside for the new Vacuum System House-Cleaning
WHO?	Issued by the Vacuum Sanitary Carpet Cleaning Company
WHEN?	1911
WHERE?	Company located at 1847 West North Avenue in Baltimore
WHY?	To promote a new service for cleaning houses and other buildings

Description of the Source

This broadside advertises a new technology for house-cleaning that promises to get rid of dust, germs, insects, and dirt with efficiency and ease. It reflects the public's increased concern for cleanliness and shows that Pasteur's germ theory is now a part of the popular consciousness. Note that the ad provides information on contacting the company by telephone.

For More Information on Topics Explored by this Source, See:

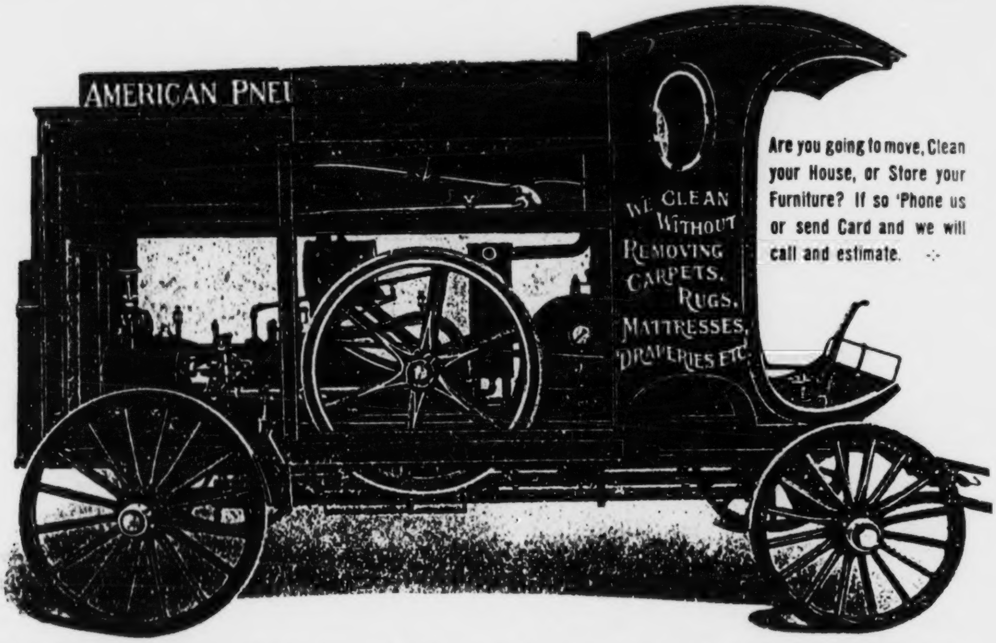
Olson, Sherry H. *Baltimore: The Building of an American City*, pp. 271-273. Baltimore: The Johns Hopkins University Press, 1997.

Research Topics and Discussion Prompts

- What is the relationship between increased leisure time in the 20th century and technological advances?
- What impact did technology have on sanitation and health in the early 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- How have technological advances affected the lives of women?
- In what ways has technology influenced the development of American consumer culture?
- How have attitudes toward cleanliness changed over time in America?

NO FUSS! NO MUSS! NO DUST!

The New Vacuum System House-cleaning


AMERICAN PNEU
WE CLEAN WITHOUT REMOVING CARPETS, RUGS, MATTRESSES, DRAPERIES ETC.

Are you going to move, Clean your House, or Store your Furniture? If so 'Phone us or send Card and we will call and estimate.

A New, Dustless and Sanitary Process of Renovating the Interior of Houses.

THE Vacuum System is without doubt the most efficient method of cleaning private residences and public buildings, and by its wonderful suction force removes all dirt, dust, grit and germs as no other system can and so thoroughly that nothing can escape.

The action of the Vacuum thoroughly cleanses and at the same time lifts the matted pile or nap of fabrics reviving their color, renewing their lustre and greatly increases their durability.

The life of Rugs, Carpets and Upholsteries may be greatly prolonged by the removal of the sharp dust particles which accumulate between the fabrics and under the constant tread of feet cut the threads until they finally give way. By the Vacuum Cleanser System moths and all other lurking insects with their larvæ are removed and their destructive lives ended.

The New Method of Cleaning Carpets without removing from the floor.

Carpets, Upholstered Furniture and Draperies cleaned with Vacuum.

The best and cheapest method, because there is no wear and tear in removing and relaying carpets.

House-cleaning is made a delight. Servant problem solved. Removes moths, germs etc.
Removes the dirt from under the Carpet. Cleans Crevices, Mouldings, Decorations, etc.
Does not injure the lightest fabric.
Cleans Mattresses, Pillows, Bolsters, Furs, Blankets, Robes, Billiard Tables, etc.
Best method for Churches and Lodge Rooms.
House-cleaning can be done in warm weather as well as any season of the year.
Improves the lasting qualities of Carpets, Rugs, etc. Avoids bare floors and ruffled tempers.

SPARES YOU FROM HOUSEHOLD HORRORS SUCH AS

Having your Carpets ruined by beating. Having your house upset for a week.
Having dust settle on everything Walking around on bare floors
Does away with danger of carpets returning home infected with germs, resulting from contamination with infected carpets.

PRICES NO MORE THAN BY THE OLD WAY.

WE SOLICIT YOUR PATRONAGE, CALL US UP. C. & P. 'Phone, Madison, 902 W.

VACUUM SANITARY CARPET CLEANING CO.

T. J. FINGLES, Manager.

1847 WEST NORTH AVENUE.

PRIMARY SOURCE # 27 (Picture)

Bureau of Recreation. "5 of the 2000 who use the City Baths [c. 1915]." Photograph. Bureau of Recreation Collection, 1966.3. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Bureau of Recreation. "6 of the 5000 who have not yet learned to bathe [c. 1915]." Photograph. Bureau of Recreation Collection, 1966.3. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Hughes Company "Public Baths at 1525 Eastern Avenue [29 April 1922]." Photograph. Hughes Collection, MC 6414, No. 22891. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Three photographs showing public baths and children who do and do not use them
WHO?	Photographed by the Bureau of Recreation and the Hughes Company
WHEN?	Groups of children photographed c. 1915; the public baths photographed on April 29, 1922
WHERE?	Photographed in Baltimore; baths located at 1525 Eastern Avenue
WHY?	Part of a city public health campaign to encourage residents to use public baths

Description of the Source

In the early 20th century most Baltimore homes lacked indoor plumbing. Henry Walters gave the city a public bath system. For ten cents, Baltimore residents could bathe, soap and towel included.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 413-414. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How have attitudes toward cleanliness changed over time in America?
- What is the impact of cleanliness on public health?
- Investigate how city, state, and national governments have sought to promote public health.
- What impact did technology have on sanitation and health in the early 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- Investigate the history of bathing in America.

5 of the 2000 who use the City Baths

6 of the 5000 who have not yet learned to bathe

BEST COPY AVAILABLE

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD

PP

PRIMARY SOURCE # 27
Encountering Maryland's Past, Volume 1: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society

Reproduction Permission Only
for Educational Purposes

PRIMARY SOURCE # 28 (Ad/Broadside)

Gallagher, Edward J. "The Convenient Kitchen [c. 1918]." Advertisement. Gallagher Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	An advertisement for Gallagher homes
WHO?	Placed by Edward J. Gallagher, Builder
WHEN?	c. 1918
WHERE?	Gallagher's offices located at 919 and 920, Munsey Building, Fayette and Calvert Streets in Baltimore; houses built on Wyman, Hampden, and Atkinson Avenues in Baltimore
WHY?	To persuade people to purchase a house built by Edward J. Gallagher, using the kitchen's convenience as a prime selling point

Description of the Source

This ad uses technology to appeal to housewives as a way to promote houses for sale. This source is from a collection of advertisements for houses built by Edward Gallagher's construction company.

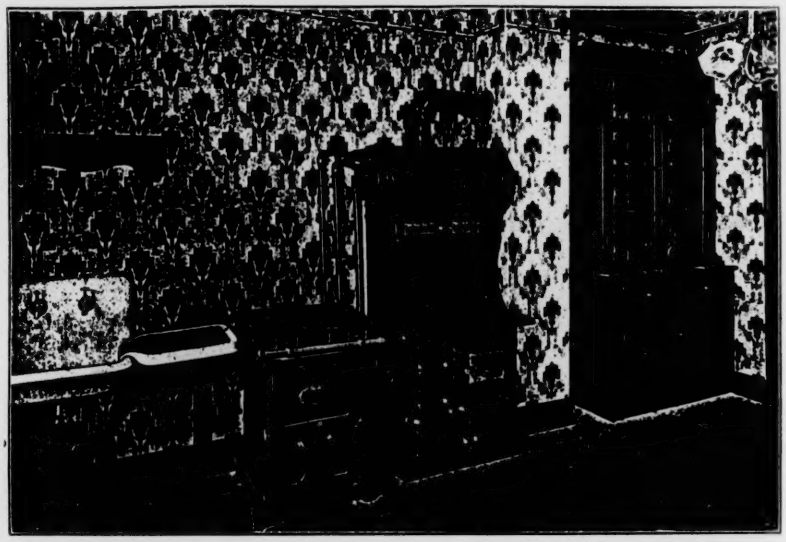
For More Information on Topics Explored by this Source, See:

Olson, Sherry H. *Baltimore: The Building of an American City*, pp. 266-268. Baltimore: The Johns Hopkins University Press, 1997.

Research Topics and Discussion Prompts

- Investigate how new technologies have been promoted and sold to the public.
- How have technological advances affected the lives of women?
- In what ways has technology influenced the development of American consumer culture?
- What is the relationship between increased leisure time in the 20th century and technological advances?
- Investigate the history of household technology in America.
- Investigate the contrast between the proposed benefits of a new technology with its actual impact on people's lives.
- How has technology advanced through the development of new types of power?

The Convenient Kitchen



The housewife's convenience and comfort have been the first consideration in arranging these kitchens. Steps are saved by having the Kitchen Cabinet so close to the Ranges. Either Gas or Coal can be used, as you desire. A fine Pantry is provided. Porcelain Sink and Drain Board, spotlessly white and clean, right next to the Ranges. Everything in its proper place to save the housewife's energy, strength and time, so that she will have more leisure and pleasure.

"As every thread of gold is valuable, so is every minute of time."

We also have modern porch front houses, similar in design, and with all the improvements mentioned as above.

300 Block Wyman Ave., near Huntingdon Ave. **Price $1400**

Wyman Ave. is between 26th and 27th Streets.

5 Houses on Hampden Avenue, near 28th Street. **Price $1200**

5 Houses on Atkinson Avenue, near 28th Street. **Price $1150**

"Time and tide wait for no man." Now's the time to buy.

EDWARD J. GALLAGHER, Builder
OFFICES: 919 AND 920 MUNSEY BUILDING
FAYETTE AND CALVERT STS. BALTIMORE, MD.

PRIMARY SOURCE # 29 (Picture)

Photograph of northwest corner of Pratt and Light streets, Baltimore [c. 1921]. MC 6976. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photograph of a street scene
WHO?	Unknown photographer
WHEN?	c. 1921
WHERE?	Photograph taken at northwest corner of Pratt and Light streets, Baltimore
WHY?	To document the city in the early 20th century

Description of the Source

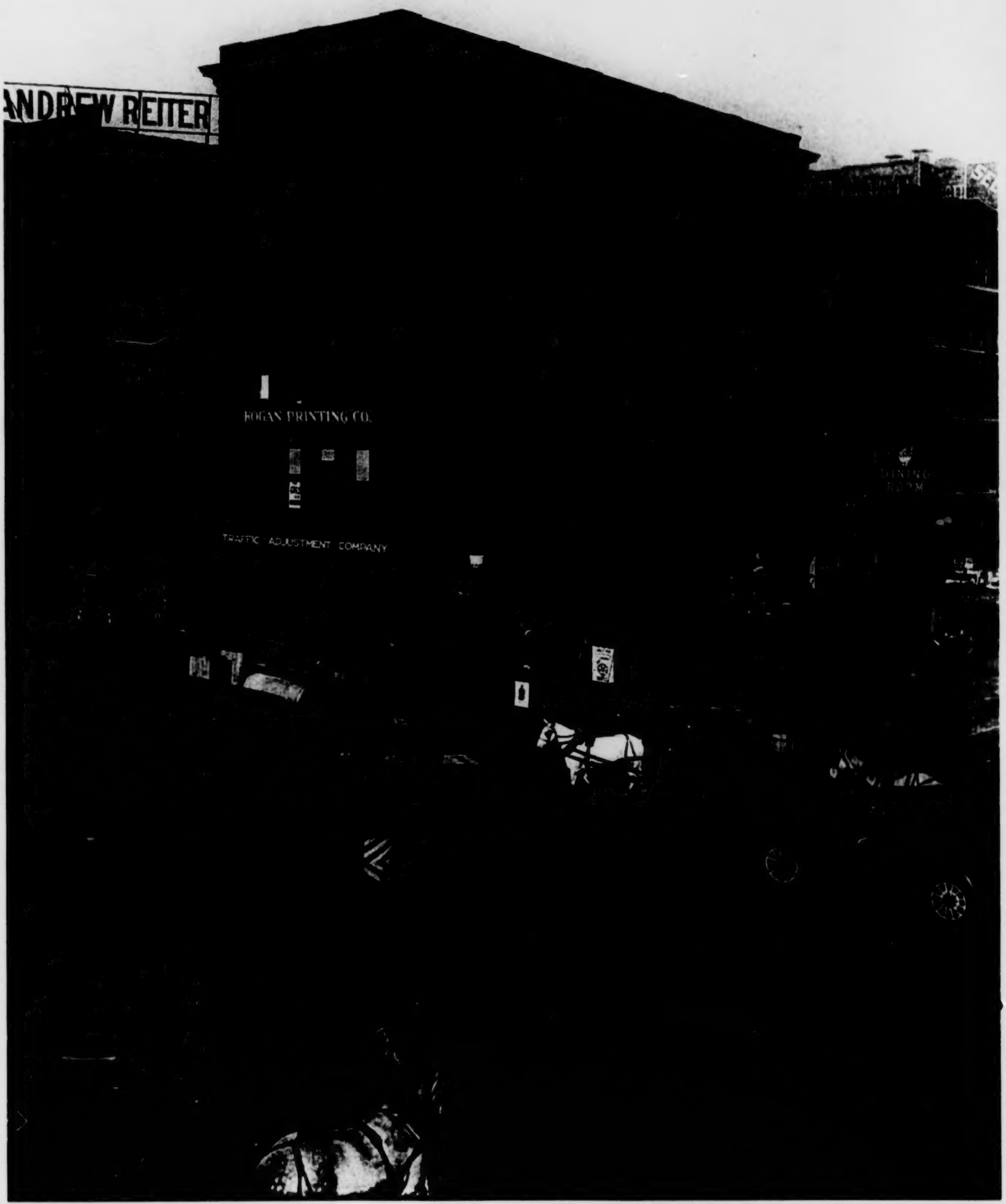
The photograph shows a street scene in Baltimore during a time at the end of the horse era and the beginning of the automobile age.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 427-434. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did Baltimore's streetscape change with the introduction of the automobile?
- What was the initial public reaction to the automobile?
- Investigate the social and economic impact of the automobile on everyday life.
- What was the role of the government in developing a national road-building system?
- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the social and economic impact of transportation change on everyday life.
- How does technology impact the development of popular entertainment?
- Investigate the relationship between communication and transportation.
- How did the automobile create jobs?
- Investigate the history of road-building technology.
- How has technology advanced through the development of new types of power?


ANDREW REITER
HOGAN PRINTING CO.
TRAFFIC ADJUSTMENT COMPANY
DINING ROOM

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 30 (Map)

The United Railways and Electric Company. "This is Baltimore: An Historic, Pleasant, Thriving City [1925]." Map. PAM 4176. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Map showing existing and planned transportation routes in Baltimore
WHO?	Published by the United Railways and Electric Company
WHEN?	1925
WHERE?	Shows Baltimore
WHY?	To promote the use of public transportation in Baltimore, particularly for sight-seeing and other leisure activities

Description of the Source

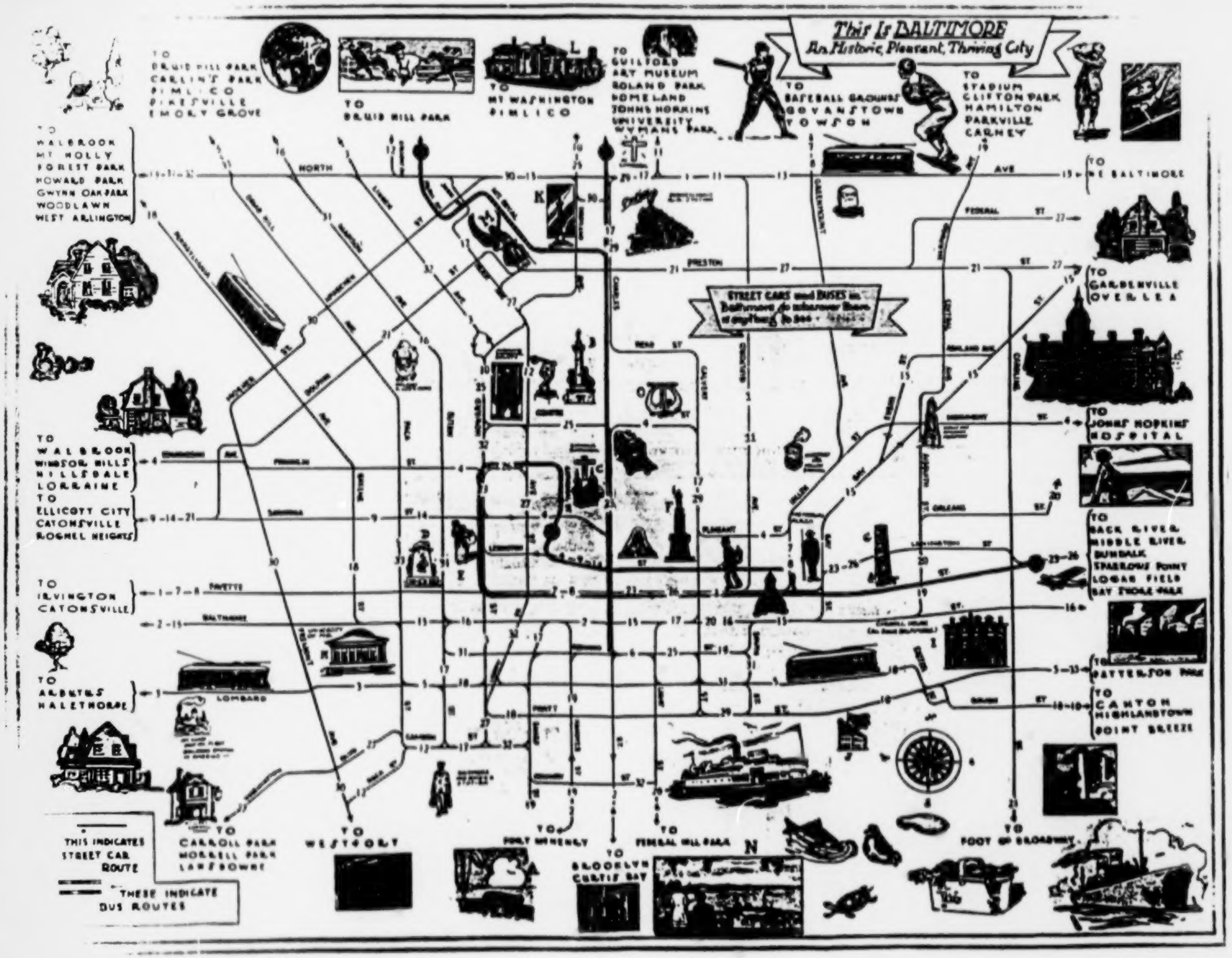
The map shows routes for street cars and busses and graphically illustrates places to go via street car and bus. It boasts that "Street cars and buses in Baltimore go wherever there is anything to see …." The map can be interpreted as both a map and an ad/broadside.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 357-358. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how new technologies have been promoted and sold to the public.
- How did Baltimore's streetscape change with the introduction of the street car?
- What was the initial public reaction to the street car?
- Investigate the social and economic impact of the street car on everyday life.
- What was the role of the government in developing public transportation?
- How did the emerging transportation network affect settlement patterns and regional development in Maryland?
- Investigate the social and economic impact of transportation change on everyday life.
- How does technology impact the development of popular entertainment?
- Investigate the relationship between communication and transportation.
- How did the street car create jobs?


This Is BALTIMORE
An Historic, Pleasant, Thriving City
TO DRUID HILL PARK CARLIN'S PARK PIMLICO PIKESVILLE EMORY GROVE
TO DRUID HILL PARK
TO MT WASHINGTON PIMLICO
TO GUILFORD ART MUSEUM ROLAND PARK HOMELAND JOHNS HOPKINS UNIVERSITY WYMANS PARK
TO BASEBALL GROUNDS GOVANSTOWN TOWSON
TO STADIUM CLIFTON PARK HAMILTON PARKVILLE CARNEY
TO WALBROOK MT HOLLY FOREST PARK HOWARD PARK GWYNN OAK PARK WOODLAWN WEST ARLINGTON
NORTH
AVE
TO NE BALTIMORE
FEDERAL ST
PRESTON
ST
TO GARDENVILLE OVERLEA
STREET CARS and BUSES in Baltimore go wherever there is anything to see
TO JOHNS HOPKINS HOSPITAL
TO WALBROOK WINDSOR HILLS HILLSDALE LORRAINE
TO ELLICOTT CITY CATONSVILLE ROGNEL HEIGHTS
TO BACK RIVER MIDDLE RIVER DUNDALK SPARROWS POINT LOGAN FIELD BAY SHORE PARK
TO IRVINGTON CATONSVILLE
FAYETTE
BALTIMORE
TO PATTERSON PARK
TO ARBUTUS HALETHORPE
LOMBARD
TO CANTON HIGHLANDTOWN POINT BREEZE
THIS INDICATES STREET CAR ROUTE
THESE INDICATE BUS ROUTES
TO CARROLL PARK MORRELL PARK LANSDOWNE
TO WESTPORT
TO FORT MCHENRY
TO BROOKLYN CURTIS BAY
TO FEDERAL HILL PARK
N
TO FOOT OF BROADWAY
K
L
M

PRIMARY SOURCE # 31 (Ad/Broadside)

Hawks, Arthur W., Jr. *Giving More: Charging Less: Growing Faster.* Year Book and Annual Report. Baltimore: Consolidated Gas Electric Light and Power Company of Baltimore, 1927. MHD 9684.2 C755R. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Centerfold of the annual report of Consolidated Gas, Electric Light, and Power Company of Baltimore
WHO?	Written by Arthur W. Hawks, Jr., for the company
WHEN?	1927
WHERE?	Company headquartered in Baltimore
WHY?	To report on the company's activities and to make the case that the company now provides its consumers more service for less money

Description of the Source

The drawings and statistics show a dramatic increase in the use of electricity by consumers and suggest ways electricity has impacted everyday life in the home. Compare and contrast the information in this source with the oral history interview with Walter H. Volker (Primary Source # 39). This source can be interpreted as an ad/broadside or as a picture.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.396-397, 409, 425. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how the introduction of electricity impacted everyday life in America.
- Investigate the history of household technology in America.
- How have technological advances affected the lives of women?
- How can technological development both create jobs and displace workers?
- In what ways has technology influenced the development of an American consumer culture?
- How has technology advanced through the development of new types of power?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.

GIVING MORE:
CHARGING LESS:
GROWING FASTER.

1927

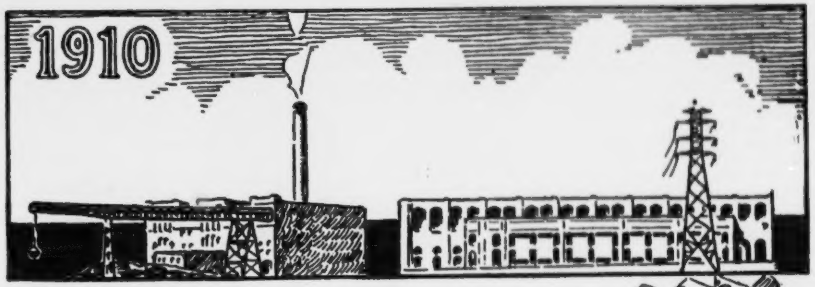
YEAR BOOK & ANNUAL REPORT

Consolidated Gas Electric Light and Power Company
of Baltimore

By

ARTHUR W. HAWKS, JR.

PRIMARY SOURCE # 31
Encountering Maryland's Past, Volume I: Science, Technology, and Invention
A Primary Source Kit from the Maryland Historical Society



$20,000,000 Invested
35,333 Horse-power

One home out of every 14 burning a few electric lights.

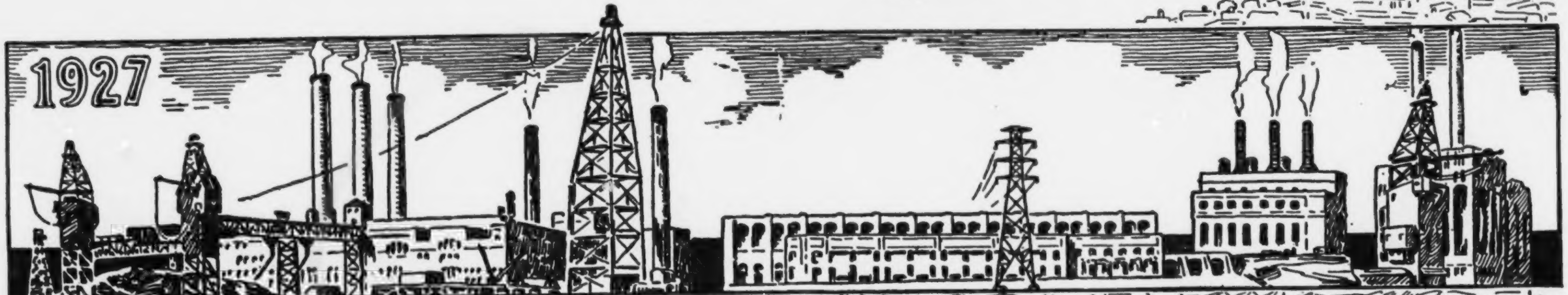
A few factories using a little electric power.

GIVING MORE:
CHARGING LESS:
GROWING FASTER.

In 1910 the Consolidated Company had invested in its electric properties $10.46 for every dollar of gross electric income. In those days people used electricity sparingly and for few things. They used one-sixteenth as much as they did in 1927 and paid twice as much per kilowatt hour for it.

In 1927 the Consolidated Company had invested in its electric properties $3.78 for every dollar of gross electric income.

Less drudgery in the home and factory, lower rates for current and 295,000 horse-power at the service of the community in the Consolidated Company's plants instead of 35,333 horse-power.



$60,000,000 Invested.
295,000 Horse-power.

Four out of every five homes using the plant at all hours for sweeping, washing, refrigeration, cooking, lighting and so on.

Practically all factories using Consolidated power and saving money by doing so.

In 1910 the Consolidated sources of power were augmented by the transmission of hydro-electric power from the Holtwood development of the Pennsylvania Water & Power Co. on the Susquehanna River. At that time the Water Power Company's plant had a total capacity of 56,667 horse-power. This total capacity had increased to 180,000 in 1927.

Maryland Historical Society Library
201 W Monument St Baltimore MD 21201

Reproduction Permission Granted
for Educational Purposes Only

REF

PRIMARY SOURCE # 32 (Picture)

Baltimore Gas and Electric Company. Photograph of lamp department, Baltimore Gas and Electric appliance store [c. late 1920s]. BG&E 4153. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photograph of lamp department in Baltimore Gas and Electric store
WHO?	Photographed by Baltimore Gas and Electric Company
WHEN?	c. late 1920s
WHERE?	Store located on Lexington Street in Baltimore
WHY?	To document business operations

Description of the Source

This photograph shows the immense variety of electrical lamps available to the consumer in the late 1920s. It is from a collection of papers compiled by the company. For more information on the Baltimore Gas and Electric appliance stores, see the oral history of Walter H. Volker (Primary Source # 39).

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 396-397. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how the introduction of electricity impacted everyday life in America. How did the use of electrical lighting change the patterns of daily life?
- How was electricity integrated into the average home?
- Investigate the history of household technology in America.
- How have technological advances affected the lives of women?
- How can technological development both create jobs and displace workers?
- In what ways has technology influenced the development of an American consumer culture?
- What is the relationship between leisure and technological advancement in the 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- How has technology advanced through the development of new types of power?

PRIMARY SOURCE # 33 (Picture)

Baltimore Gas and Electric Company. Photograph of Baltimore Gas and Electric appliance store [1939]. BG&E 4153. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photograph of Baltimore Gas and Electric appliance store
WHO?	Photographed by Baltimore Gas and Electric Company
WHEN?	1939
WHERE?	Store located on Lexington Street in Baltimore
WHY?	To document business operations

Description of the Source

Taken on the floor of the Baltimore Gas and Electric merchandise department, this photograph shows a variety of electrical appliances available to the consumer in the 1939. It is from a collection of papers compiled by the company. For more information on the Baltimore Gas and Electric appliance stores, see the oral history of Walter H. Volker (Primary Source # 39).

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 396-397. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how the introduction of electricity impacted everyday life in America.
- How was electricity integrated into the average home?
- Investigate the history of household technology in America.
- How have technological advances affected the lives of women?
- How can technological development both create jobs and displace workers?
- In what ways has technology influenced the development of an American consumer culture?
- What is the relationship between leisure and technological advancement in the 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- How has technology advanced through the development of new types of power?
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.

RIC COMPANY
CP
ORIOLE
GAS·RANGES·GAS
CP
ENJOY A MODERN HOME LAUNDRY!
WASHERS AND IRONERS
GAS & ELECTRIC
SEE THE LATEST
RADIO
BETTER SIGHT LAMPS
122357A

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I

PRIMARY SOURCE # 34 (Document)

Glenn L. Martin Company. "War Record of Martin Bombers: First Eighteen Months [13 December 1946]." Maryland World War II Collection, MS.2010. Manuscripts Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	A chronology of the use of Martin bombers in World War II
WHO?	Compiled by the Glenn L. Martin Company Public Relations Department
WHEN?	Released on December 13, 1946
WHERE?	Published in Baltimore, where the bombers were manufactured; chronicles bombing runs over Europe, Asia, and North Africa
WHY?	To publicize the success of the company's bombers

Description of the Source

This source is an excerpt from a much longer document that describes all of the activities of Martin bombers in World War II. Revealing that America's technological involvement in World War II pre-dated its military involvement, Martin bombers saw service beginning in the spring of 1940.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 45-460, 529-542. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How did the development of Martin bombers impact the war and later developments in aviation?
- How have wars impacted technological development?
- How has the development of new technologies influenced the nature of warfare?
- How have wartime technologies found use during peacetime?
- How can technological development both create jobs and displace workers?

GLM ✓ DEC 13 1946 Mr. Thomas

THE GLENN L. MARTIN COMPANY
PUBLIC RELATIONS DEPARTMENT
BALTIMORE 3, MARYLAND

WAR RECORD OF MARTIN BOMBERS: FIRST EIGHTEEN MONTHS

Almost daily, after the war began, news of the effective combat power of the Martin bombers poured in. They flew over every war front, participated in nearly every important engagement.

A chronology, from the time the United States entered World War II, follows:

Background - Martin 167s (Marylands) saw some service in the defense of France in the Spring and early Summer of 1940. It wasn't until the Allies, reeling from the hard blows of the Nazi juggernaut, began to strike back after Dunkirk, that Martin bombers really came into their own. In the Fall of 1941 they became very effective in the North Africa campaigns. They were used in raids on Derna in Cyrenaica, Bengasi, Bardia and Sirte; downed numerous Italian planes and German Messerschmitt-109s; spotted an eleven-ship Italian convoy, reported same to British Admiralty, which sank same.

1943

Feb. 15 - A summary covering four months of activities of the Baltimore in North Africa was released this date. The 187s were playing an increasingly important role in hammering Field Marshal Rommel's supply lines, harbors, landing grounds and troop concentrations in the Western Libyan Desert. Often they returned holed like pepper pots but could still fly even on one engine. The first RAF squadron under Wing Commander Wild raided dock installations at Bengazi without fighter escort. Other unescorted raiders attacked at Derna and Tmimi. A high level, daylight raid was conducted against the Mersa Matruh Harbor, where direct hits were scored on an oil tank, stores, wharves and heavy concentrations of motor transport. The Baltimores aided ground troops in the late summer by pounding Rommel's forces by shuttle system at the El Alamein Line.

PRIMARY SOURCE # 35 (Picture)

Photographs (3) of the construction of pre-fabricated housing in Harundale, Maryland [c. 1947]. MC 5909, Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

Baltimore Gas and Electric Company. Photograph of a pre-fabricated house in Harundale, Maryland [31 March 1947]. BG&E 17418. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photographs showing the construction of pre-fabricated housing
WHO?	Photograph of a completed house taken by Baltimore Gas and Electric Company; other photographs unidentified
WHEN?	Photograph of completed house taken on March 31, 1947; others c. 1947
WHERE?	Harundale, Glen Burnie, Anne Arundel County, Maryland
WHY?	Unknown

Description of the Source

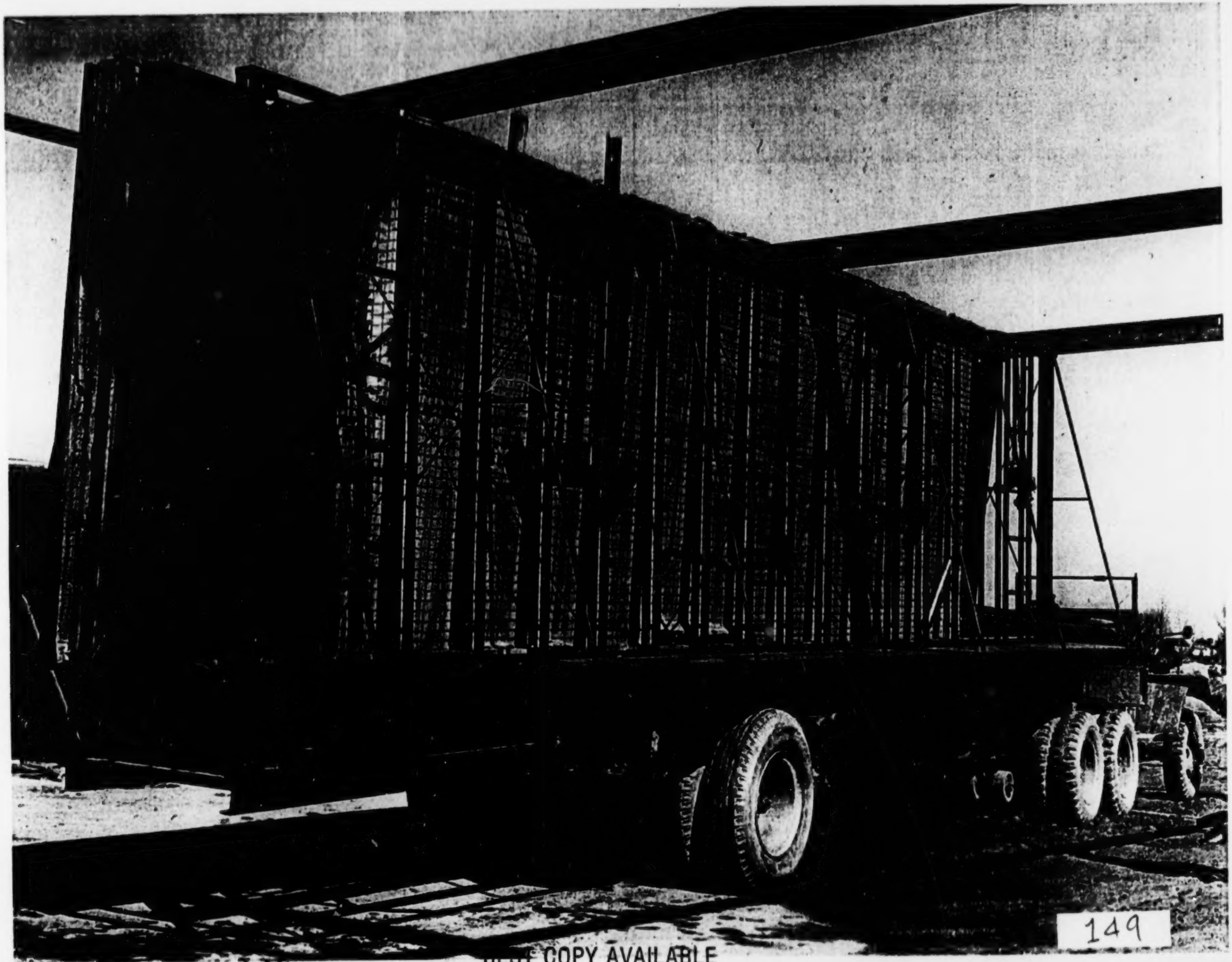
These photographs give a step-by-step view of the construction of pre-fabricated houses in the Maryland suburbs. In the years after World War II, an increased need for housing led to the development of new methods of construction and the growth of suburbs.

For More Information on Topics Explored by this Source, See:

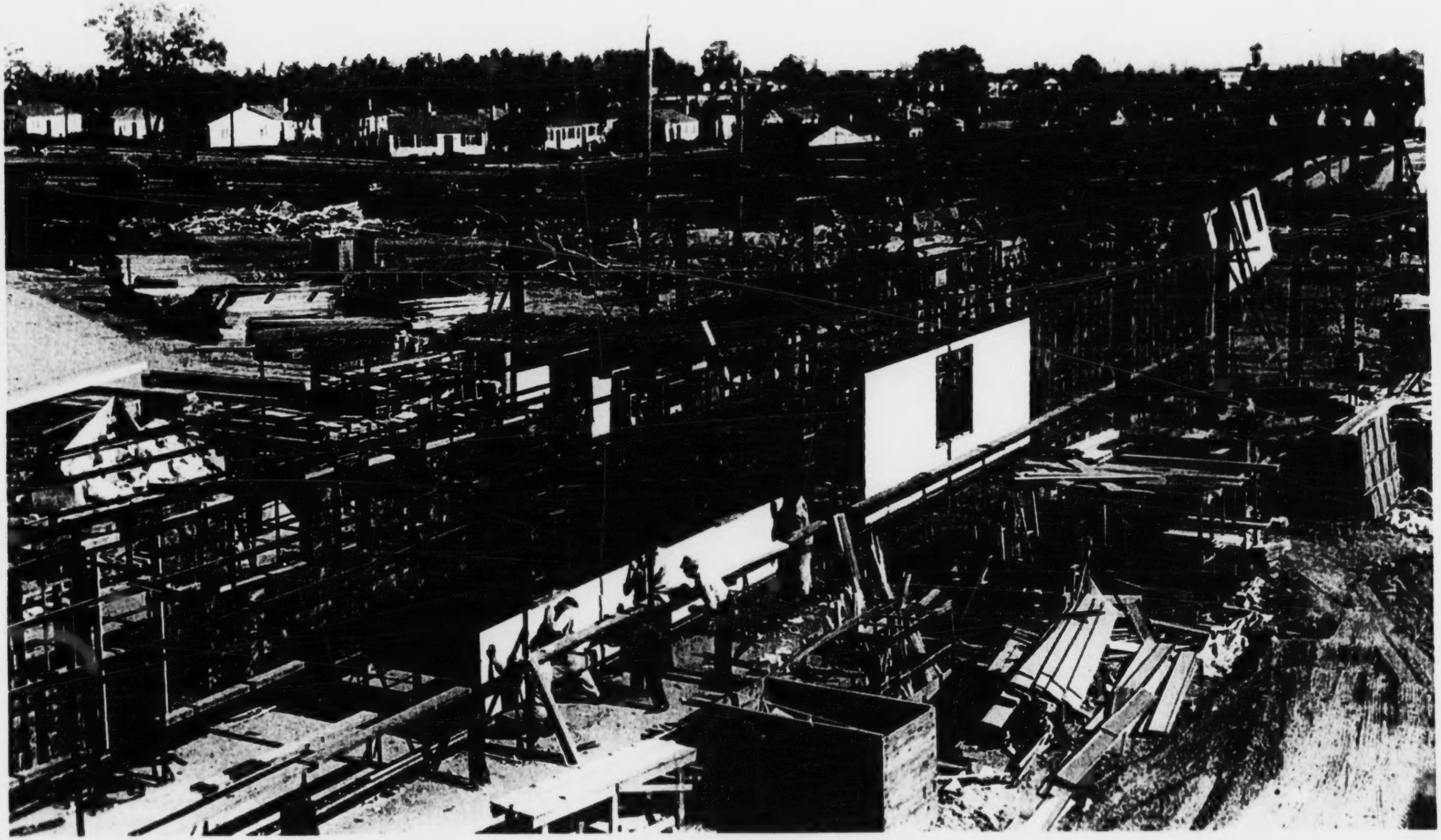
Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 554-555. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

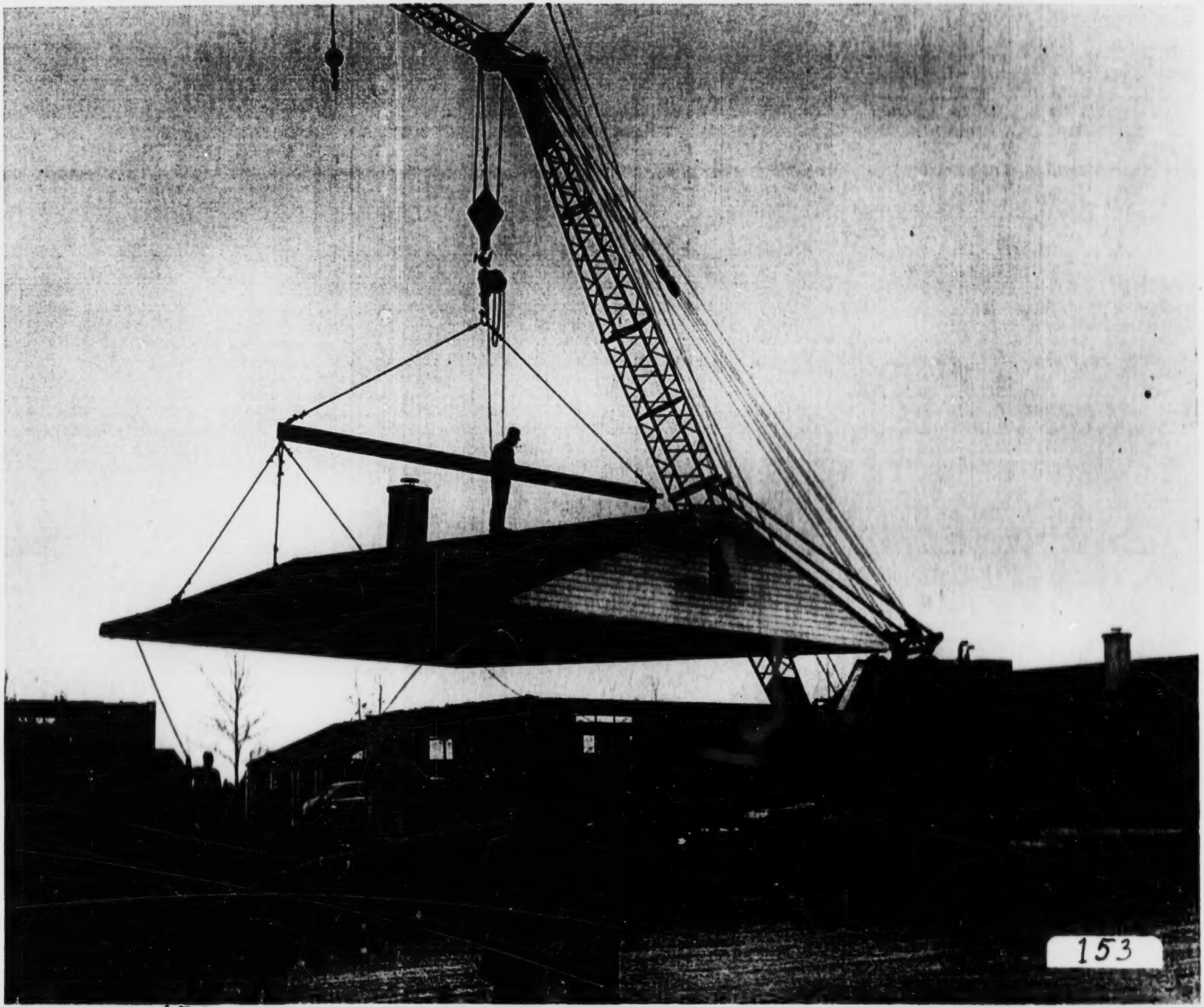
- How did suburbanization and electrification impact the city?
- Investigate the development of house-building technology.
- What factors influenced the development of suburbs after World War II?
- How have wartime technologies found use during peacetime?
- What impact do transportation and technology have on building construction?
- How have people adapted technology to meet unanticipated needs?



149



BEST COPY AVAILABLE


153

154

155

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Volume I: Science, Technology, and Invention in History

PRIMARY SOURCE # 36 (Picture)

Baltimore Gas and Electric Company. Photograph of Edmondson Village Shopping Center [c. 1950]. BG&E 18398B. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photograph of Edmondson Village Shopping Center
WHO?	Photographed by Baltimore Gas and Electric Company
WHEN?	c. 1950
WHERE?	Shopping center located on Edmondson Avenue in West Baltimore
WHY?	To document business operations

Description of the Source

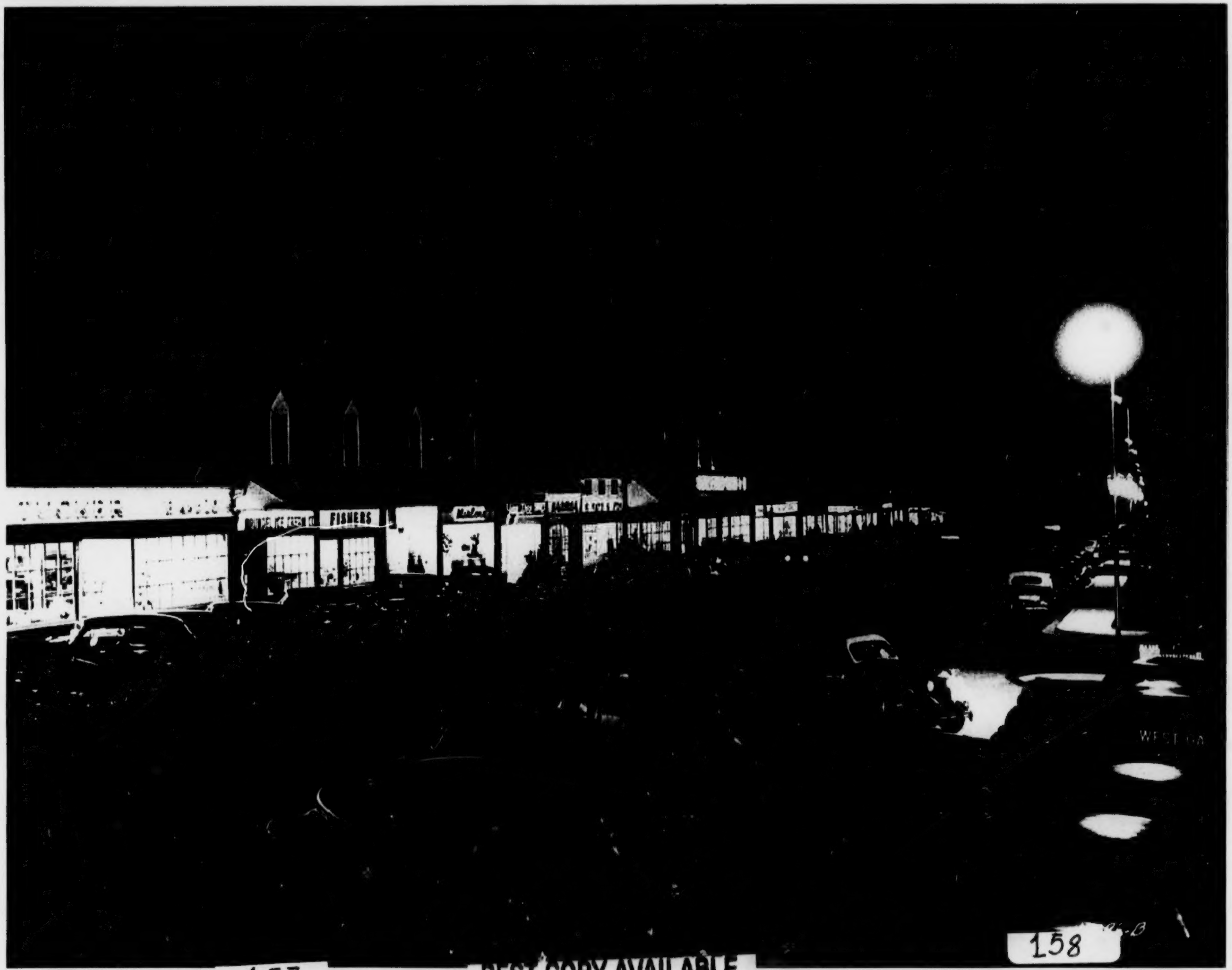
This photograph is a night-time view of automobiles filling the parking lot of one of the nation's first strip malls. The photograph reflects many 20th century technological changes, including the integration of electricity into everyday life, the expansion of suburbs, and the move of shopping centers out of city centers to suburbs. It is from a collection of papers compiled by Baltimore Gas and Electric Company.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp.583-585. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how the introduction of electricity impacted everyday life in America.
- How did suburbanization and electrification impact the city?
- How have technological advances affected the lives of women?
- How can technological development both create jobs and displace workers?
- In what ways has technology influenced the development of an American consumer culture?
- What is the relationship between leisure and technological advancement in the 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- How has technology advanced through the development of new types of power?



158

157

PRIMARY SOURCE # 37 (Picture)

Henderson, Paul. Photograph of television talk show, Channel 13, Baltimore [January 1954]. Henderson Collection. Prints and Photographs Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Photograph of the filming of a television talk show
WHO?	Photographed by Paul Henderson, photographer for the *Afro-American* newspaper
WHEN?	January, 1954
WHERE?	Photographed in the WAAM -- Channel 13 studio in Baltimore
WHY?	Unknown

Description of the Source

This is a still photograph of a television talk show that appeared on Channel 13 in Baltimore. It is from a collection of photographs taken by African-American photographer Paul Henderson.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 574-575. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How has television reflected and influenced race relations in America?
- How has television been used to inform and educate the public about changes in technology?
- Investigate the history of television technology in America.
- How does technology impact the development of popular entertainment?
- Investigate how science, technology, and invention can influence the exchange of information and create a sense of national unity.
- What was the impetus for inventing the television?
- Investigate the social and economic impact of television on everyday life.
- How can technological development both create jobs and displace workers?
- Investigate the history of household technology in America.
- What is the relationship between leisure and technological advancement in the 20th century?

BEST COPY AVAILABLE

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I:

PRIMARY SOURCE # 38 (Document)

McCloskey, Ann. Letter to Mr. and Mrs. Francis S. Key [1 August 1972]. OH 8053-8061. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Letter regarding proposed traffic tunnel
WHO?	Written by Ann McCloskey, Secretary, The Society for Environmental Litigation; addressed to Mr. and Mrs. Francis S. Key, Maryland Historical Society
WHEN?	August 1, 1972
WHERE?	Organization located at 2403 Rogers Building in Baltimore
WHY?	To enlist support for a lawsuit to prevent the construction of ventilation shafts near Fort McHenry as a part of a proposed project to build a traffic tunnel near Ft. McHenry

Description of the Source

This source was found in a collection of oral histories that examined one of the most controversial issues in Baltimore in the 1970s - the proposed East-West Expressway. Because of public opposition to the project, the expressway was never completed.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 661-662. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- What motivates citizens to campaign against new technologies?
- How do technological development and preservation come into conflict?
- How does government balance the needs of a growing society against the need to preserve the past?
- How can technology have a negative impact on society?
- Investigate the history of road-building technology.
- How have Americans' attitudes toward technology changed through time?
- Investigate the history of pollution and efforts to fight pollution.

The Society For Environmental Litigation

A NON-PROFIT CORPORATION

CHANNELING
CHANGE THROUGH LAW

2403 ROGERS BUILDING
BALTIMORE, MARYLAND 21209
301-367-8855

CURRENT DOCKET:

MARYLAND WETLANDS CASE

WHITE CLOUDS MOUNTAINS
NATIONAL FOREST CASE

OPEN SPACES CASE

ESCALANTE CANYON
(UNDER CONSIDERATION)

THE VICTORIAN BUILDING
CASE

August 1, 1972

Mr. and Mrs. Francis S. Key
Maryland Historical Society
201 W. Monument St.
Baltimore, Md. 21202

Dear Mr. and Mrs. Key:

The Locust Point Civic Association, together with our organization, is in the process of preparing a law suit to seek to prohibit the construction of ventilating shafts 40 feet high and some 100 yards in breadth in the perimeter of the Fort McHenry property, and only 100 yards from the Star Fort itself.

These ventilating towers are an adjunct to the automobile traffic tunnel which is to be built under the Fort.

Studies by civil engineers and sanitary engineers at the Johns Hopkins University have indicated that aside from the considerable esthetic damage which these ventilating towers will cause, there will be an air pollution problem of huge proportions, such that visitors at the Fort will be in an atmosphere equivalent to that from the exhaust of a diesel bus.

One of the Plaintiffs will be the Locust Point Civic Association. Our attorneys have advised us that it would be advantageous to have, in addition, a small group of "taxpayers". It is our hope that with your help we may form this "taxpayers" group exclusively of 4 to 6 persons who are direct descendants of soldiers who served in the battle of Fort McHenry-North Point.

A member of our organization, or of the Locust Point group will contact you soon, and we hope that you will give sincere consideration to our request.

Continued--

There would, of course, be no financial obligation on your part.

Very truly yours,

Ann McCloskey

Ann McCloskey
Secretary

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 2120

REF

Reproduction Permission Granted
for Educational Purposes Only

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I

PRIMARY SOURCE # 39 (Oral History)

Volker, Walter H. Interview by John T. King III, 27 August 1982. Transcript of tape recording. OH 8460. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Transcript of oral history concerning electrification in Maryland
WHO?	Interview of Walter H. Volker, Superintendent, Electric Appliance Service, Baltimore Gas and Electric Company; interviewed by John T. King, III, Executive Assistant to the Chairman of the Board
WHEN?	Interviewed August 27, 1982
WHERE?	Home of Walter H. Volker
WHY?	To update the history of the Baltimore Gas and Electric Company

Description of the Source

This oral history discusses how Baltimore Gas and Electric Company promoted the increased use of electrical power in the home. For related sources, see the photographs of the Baltimore Gas and Electric appliance store (Primary Sources # 32 and 33). This is one of a set of 20 interviews conducted by Mr. John T. King III to update the history of the company.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 396-397. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- Investigate how electricity altered economic and social patterns in the early 20th century.
- Investigate how the introduction of electricity impacted everyday life in America.
- Investigate the history of household technology in America.
- How have technological advances affected the lives of women?
- How can technological development both create jobs and displace workers?
- In what ways has technology influenced the development of an American consumer culture?
- What is the relationship between leisure and technological advancement in the 20th century?
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- How has technology advanced through the development of new types of power?

Oral History Interview
Walter H. Volker
Baltimore Gas and Electric Company

September 14, 1982

Tape Identification

This is J. T. King and the date is Friday August 27, 1982. I am at the home of Mr. Walter H. Volker at 1543 Woodbourne Avenue, in Baltimore. At the time of his retirement, on November 1, 1966, Mr. Volker was Superintendent-Electric Appliance Service, Baltimore Gas and Electric Co.

This tape is being prepared in connection with the Corporate History Project. Walter, could we start out with some biographical information and begin at the very beginning.

King: Where and when were you born?

Volker: I was born in Baltimore Maryland, October 25, 1901, in West Baltimore.

King: Who were your parents?

Volker: Frederick Volker was my dad, who came from Germany. Caroline Werner was my mother, who also came from Germany. Pop came over by himself with a small trunk with all his belongings in it, five dollars in cash, and a letter of introduction to a shoemaker in South Baltimore. His father, my dad's father, was a Meister Schuhmacher, as they called them.

King: The master shoemaker?

Volker: The master shoemaker. In Europe there is a master in each trade.

King: Yes. Trade recognition of top professional skill.

Volker: And he came over on a combination sailboat and steam. It took him three weeks, and he landed down near Fort McHenry at Port Covington.

King: Would this have been in the late 1800's?

Volker: About 1880. The man to whom he had the letter of introduction met him. I have no idea what he met him with, unless he just came down on the street car.

King: I guess a lot of people moved around that way in the city then.

Volker: Sure. Because the street car ran close to where the boats now dock. They still come in there. That used to be the North German Lloyd headquarters. His host took him home, and then Pop lived with him and continued with his trade. I guess they did do this on the street car, because the street car ran right close to where he lived.

King: That's how my father would have traveled around town in his youth and gotten to school, and gotten around generally. Were your father and mother married in this country? Or had they been married in Germany previously?

Volker: No. Pop met Mom at a dance here in Baltimore. You know they had quite a large German colony in that area of the city around the beginning of the 1900's.

Volker: But I had my good friends in the Test Department. I would go out and diagnose a problem as best I could. If I couldn't make the thing work, I'd come back and get ahold of Schwartz, who was one of the men in the Test Department. Or Jimmy Graff, who moved up to foreman and then went to the Power Department. I'd give him the whole story. Then they'd put me on that crisscross machine: "Well how about so and so? Did you get any voltage there? Did you check this?"

King: Cross-examined to a real degree.

Volker: So finally they said, "Well, it's either this, or it's this, or it's this." Then I would go back and continue checking until I found the trouble.

King: At least it put some kind of a bracket on the limits of the problem.

Volker: In those days, you have to remember, we were doing gratuitous service for most of this work.

King: That's true, no charge for the customers.

Volker: Since we weren't charging the customers, they didn't get upset if you left and came back.

King: But our theory was that we didn't want those meters not to be turning.

Volker: The main thing was to keep the meters running.

King: Exactly. What we were doing was selling energy and this was a way to do it.

Volker: Then, when Shaffer came back, I became the first full-time Electric Range serviceman that the Company ever had. Ranges were then becoming more popular. I had a 3-wheel motorcycle, and instead of a sidecar I had a side box in which I carried parts and tools. You see them once in a great while even now.

King: But not the model you were riding.

Volker: No. Well, it was a Harley Davidson.

King: Was it really? What you did was to service Kelvinators?

Volker: No. We're not up to Kelvinators. We're only up to electric ranges at that point.

King: What kinds of problems were electric ranges having for the most part?

Volker: Switches and units.

King: That is the heating unit itself, the resistance unit?

Volker: They had units which were constantly burning out, and switches that couldn't carry the load. They'd get covered with grease, and they'd break down.

King: So you would carry replacements.

Volker: I had them in a box.

King: And you responded to calls day or night, on your motorcycle?

REF

Volker: Yes.

King: That's when you rode those country roads?

Volker: Yes, it had an acetylene gas headlight. You have to picture that now; they haven't been around for a long while.

King: I'll try to. Miners used to have them on their hats, acetylene lights.

Volker: I think so. Of course, going down these country roads . . .

King: Not paved . . .

Volker: Our secondary system didn't even exist in those days. They were dirt roads and that's when the famous bumpy ride started. The headlight was everywhere but on the road.

King: I really don't know how you survived.

Volker: And to find the place at night. There was no one on the roads to stop and talk to and no filling stations.

King: And probably no street numbers out there. It would be the fourth house beyond the XYZ crossroad or something.

Volker: You can't miss it because there's a big oak tree right on the corner.

King: Yes. The only oak tree in Maryland is right on the corner.

Volker: So that went on for a long while.

King: Were you then the one fellow doing that work with the electric ranges, or was there more than one serviceman doing them?

Volker: I was the only one.

King: You were doing it alone. Was there only one make of electric range? Or was there more than one type?

Volker: Well, there were several makes, but the Company was selling Westinghouse. Now that's interesting. If you wanted to buy an electric range in those early days, you went to the Power and Fuel Department offices and they had two ranges on display.

King: Not the Merchandise Department?

Volker: No, no. Then one of the power salesmen would sell you an electric range.

King: It was considered that specialized. And of course it used a lot of juice.

Volker: We were talking about 9 and 11 kw load. Unheard of until then.

King: Yes. Enormous in terms of usage at that time. So that range was set aside for the specialist to sell. Walter, before we started taping, you mentioned the locations of our appliance sales stores. You had said, I think, that we had an electric and a separate gas sales store downtown.

Volker: That's interesting. The stores were downtown in the main building about where we are now.

King: In the G&E building?

Volker: In the original G&E building that's still there.

King: The one that now has a wrap-around?

Volker: Right. They had an annex to it. It was in the Front Store where the tellers are now that the electric appliances were sold. Then if you went back towards the first annex, there was a fixture department where they sold fixtures--all specialized.

King: That first annex would have been the one directly to the south of the main building, wouldn't it? It seems to me that the other annexes ran off to the east.

Volker: Then there was another one even beyond that. There were several. The third one was the gas display room, where they had gas water heaters and gas ranges.

King: Just those two things?

Volker: Yes. The Oriole gas range was manufactured in Baltimore. At one time, I'd say that half the homes in Baltimore had an Oriole gas range. It was made in Baltimore, and bought from the Gas and Electric Company.

King: Was that the only one we sold, the Oriole gas range?

Volker: Yes. There weren't many to sell.

King: No competitive models, like Tappan, or any other?

Volker: It may have been in their area, but not up here.

King: But all your work was with electric?

Volker: Right.

King: So we had stores in what is now the main Gas and Electric building, and in one of the old annexes. Did we have stores in the outlying locations?

Volker: Yes. We had one in Catonsville and one in Highlandtown. It's hard to picture these stores because they were mostly in what had been private homes. So you usually had to walk up 3 or 4 steps to get into the building.

King: In the good old Baltimore marble step tradition.

Volker: Then there was one at Annapolis, there were one at Havre de Grace, and one at Belair. I believe that was it. And that, of course, pretty well covered our system as of that date.

King: Yes. It fairly well covered the whole territory at that time. Just this morning I ran across something in Thomson King's book, the history of the Company up until 1950. And this paragraph refers to a report made in 1924, by Mr. Richard Tillman, the head of the New Business Department. Mr. Tillman was reporting to the Company President, and he's talking about the outlook for electric refrigeration, cooking, and heating. He says in his report

Maryland Historical Society
201 W. Monument St. Baltimore

REF

Reproduction Permission Granted for Educational Purposes Only

that there is a "Widespread public acceptance of the household electric refrigeration principle. The sales of these machines are increasing very rapidly as the mechanical features are being improved and the first costs are being reduced." I guess that's the cost of buying it. "In Baltimore, we have approximately 1,400 of these machines." Now 1,400 refrigerators doesn't sound like anything, does it, in a city the size of Baltimore?

Volker: No, because we've got about 140,000 now, or even more now.

King: Yes, something like 100 times, maybe more than 100 times as many. And this was giving us revenue of $35,000 a year at that time. "We are confident," this is Richard Tillman going on, "that this application, "namely the refrigeration, "of our service will develop and increase our residential income more than through any other known electrical appliance." And what interested me in it was the opportunity that I was going to have today to ask you whether that was an accurate forecast in 1924? Were electric refrigerators the really popular thing that people were buying then?

Volker: You're 100 percent right.

King: Really. It was proved by later experience.

Volker: Mr. Tillman was a brilliant man.

King: And he really emphasized these sales, no doubt.

Volker: First they put Mr. W. C. Walke in charge of that. He was from the Power and Fuel Department and also from the south, a perfect gentleman. He was about your size. Really one of the truest gentleman that I've met in my life. Now, how did they get started? There was a Kelvinator Corp. that opened a distributorship in Baltimore on South Charles Street in about 1924. They were the distributor and we were the dealer. Dorsey Smith was in the picture, because they were going to do this job. I think the story of appliance sales is the most interesting story in the whole Gas and Electric Company from the load building standpoint.

King: Yes. It just skyrocketed.

Volker: It's unbelievable. I don't know what the kilowatt hour consumption of the average home was in Baltimore, prior to 1920's. You can get that, I'm sure, if you want it.

King: It's probably in Thomson King's book; he has a lot of statistics like that. But it's undoubtedly up by a great multiple of whatever it was then.

Volker: Because in those days most people had about two lights in the house, 25 watt bulbs hanging down on a piece of cord in the kitchen and another in the living room.

King: Single circuit, and it went for lighting, and that was about it. A family might have had a radio, and they might have had an electric iron, and they were just getting into refrigeration.

Volker: Well they didn't even have that then. Do you want to finish up refrigeration now?

King: Yes, I think we might go ahead with that. I was interested in your comment on this because you say Richard Tillman's guess or forecast that refrigeration was going to be a tremendous load builder, in terms of appliance sales, was correct. And then they go on to say "We have two competent and best domestic electric refrigerator manufacturers in the country, and they're well represented here in Baltimore." Obviously, one was Kelvinator. And then "they have done good work." We believe that very shortly the Company will be in a position to definitely recommend and sell a machine that will give the best service to our customers." And I guess then, we became a dealer for Kelvinator.

Volker: Frigidaire was the other one.

King: Was that the competitor he mentioned?

Volker: They were the two.

King: Then we have Richard Tillman's comments that we had 485 installations of domestic electric ranges. It just sounds like absolutely nothing, but he had confidence in that, too. He thought the design should be improved, and that the cost was rather high compared to other fuels and the cost of other stoves. He thought those would come down and would be good load builders. So he was a good estimator. Did you want to say a little more about refrigeration business? We got into Kelvinators; you were the Kelvinator expert.

Volker: They created a special sales department in the Merchandise Department to go door-to-door selling refrigerators.

King: This was the cold canvass? You'd ring the doorbell, "Are you interested in a refrigerator, madame?" That sort of selling?

Volker: They consummated the deal with Kelvinator, and Dorsey Smith was a great one for buying carload lots.

King: Did he head the Merchandise Department at that time when he bought carload lots?

Volker: Yes. They called him Dorsey R. Discount Smith because he always had the lowest price. He'd buy a carload of electric fans. It was unheard of. A carload of electric irons.

King: Where did he put all these things?

Volker: In fact, you couldn't believe it. Well, he bought a great many irons and they drew 1,000 watts. People would plug them into the light socket in the Kitchen to do their ironing, and they'd burn the wire up that supplied the lights.

King: Sure. It wasn't designed for that kind of resistance.

Volker: It was very dangerous. So Dorsey Smith couldn't do anything about the wire immediately, but he got the manufacturer to make a 500 watt iron. A little slower to finish your ironing, but perfectly safe.

King: It didn't overload the inadequate electric system.

Maryland Historical Society Library
201 W. Monument St., Baltimore, MD 21201

REF

Reproduction Permission Granted
for Educational Purposes Only

Volker: And you could buy it on your G & E service bill at 50¢ a month. We sold them by the thousands.

King: It's interesting because that's one of the earlier things the Company did. We allowed customers to put appliances on their service bills. That goes way back. A lot of people, I'm sure, couldn't buy appliances elsewhere, and would buy them from us for that very reason. Because we were interested in the load building.

Volker: We set a lot of standards. Then back to the refrigerators which in those days were all remote-type jobs. The icebox or refrigerator part of it sat in the kitchen. Then you ran copper tubing from the copper cooling coil in it to the compressor unit that was in the basement.

King: So they were physically separated.

Volker: Oh yes. It took two men a full day to install one of these things. They were all remote jobs, and they were the best that we really ever had in some respects. We'd have to go out and run a separate electrical circuit and also run the tubing. If you had a good refrigerator, we could put in what was called a brine tank which was filled with what amounted to salt water. It was an antifreeze with no odor because of the refrigeration. Then we hooked that to the compressor. We used sulphur dioxide as the refrigerant.

King: Before freon, or whatever is now used?

Volker: Way before freon. Now the system was perfectly good, but it had to run on a vacuum. When it leaked, it stunk to high heaven.

King: And you lost your vacuum, too. It would've smelled horrible. Well, did this mean that the heat that was withdrawn from your refrigerator was given up in the basement, so it didn't tend to overheat the kitchen?

Volker: Right.

King: So that was an advantage in a way.

Volker: And it gave it much more capacity.

King: More space to use for your refrigeration.

Volker: We put one-quarter horsepower motors on them and they ran an average of about 8 hours a day.

King: When did they begin to become an integrated unit? I can remember the ones with the big coil sitting up on the top of the refrigerator.

Volker: Well about 1930 General Electric came out with their famous birdcage refrigerator. The unit sat on top of the refrigerator. It was an odd looking thing but didn't look too bad. The motor and compressor were enclosed in a steel shell and around the outside of it were spiral coils which made up the condenser. That's where they got rid of the heat. Then it was mounted on the platform, and the top of the refrigerator itself had no ceiling in it. It had an open hole.

ENCOUNTERING MARYLAND'S PAST CONTEXT PAGE
Science, Technology, and Invention in History Volume I

PRIMARY SOURCE # 40 (Oral History)

Penn, Austin E. Interview by John T. King III, 1 October 1982. Transcript of tape recording. OH 8462. Reference Department, Maryland Historical Society Library, Baltimore, Maryland.

WHAT?	Transcript of an oral history about the development of nuclear power in Maryland
WHO?	Interview of Austin E. Penn, former Chief Executive Officer, Baltimore Gas and Electric Company; interviewed by John T. King, III, Executive Assistant to the Chairman of the Board
WHEN?	Interviewed October 1, 1982
WHERE?	Home of Austin E. Penn
WHY?	To update the history of the Baltimore Gas and Electric Company

Description of the Source

This oral history discusses Baltimore Gas and Electric Company's decision to enter the field of nuclear power in 1967. This is one of a set of 20 interviews conducted by Mr. John T. King III to update the history of the company.

For More Information on Topics Explored by this Source, See:

Brugger, Robert J. *Maryland: A Middle Temperament, 1634-1980*, pp. 633-636. Baltimore: The Johns Hopkins University Press, 1988.

Research Topics and Discussion Prompts

- How have Americans' views of nuclear power changed over time?
- What were the positives and negatives of using nuclear power?
- Investigate the public's initial reaction to nuclear power.
- Investigate how new technologies have been promoted and sold to the public.
- How have Americans' attitudes toward technology changed through time?
- Investigate the contrast between the proposed benefits of a new technology with its actual effect on people's lives.
- How has technology advanced through the development of new types of power?

Oral History Interview
Mr. Austin E. Penn
Baltimore Gas & Electric Company

November 3, 1982

Tape Identification

This is J. T. King and the date is Friday, October 1, 1982. I am at the home of Mr. Austin E. Penn, who is more generally known as Mr. Jack Penn, at Gibson Island, Maryland. On November 1, 1969, Mr. Penn retired as Chairman of the Board and Chief Executive Officer of the Baltimore Gas and Electric Company, after more than 49 years of active service. He continued, however, as Chairman of the Executive Committee of the Board of Directors until April 1977, bringing his total Company service to 57 years.

This tape is being made as a part of the Corporate History Project.

So, could we start at the very beginning and get some biographical information?

King: Where and when were you born?

Penn: I was born on a farm near Mount Airy, Maryland on October 12, 1904. My father was Elmer S. Penn who was born in the same area. My mother, Mary Louis Penn, was also from that area. Her maiden name was Lightfoot and her people came from the Northern area of Virginia.

King: Was this an operating farm at Mount Airy, Mr. Penn, as opposed to just a pretty place to live?

Penn: My father was a farmer by trade. He had a small farm, although he sold it in the early days, apparently shortly after I was born. From that time on he worked for other farmers.

King: But still remained in the same general Mt. Airy - Ridgeville area?

Penn: No, we moved all over creation, it seemed to me. We came down into the Worthington Valley and he worked there on a farm. He came into Baltimore City and worked for a while for one of the dairies. We lived near Carroll Park at that time. Later on we moved into the West Arlington area, where I lived until 1945. Then I moved to Roland Park, and from there up on the Bush River, and then to Gibson Island.

King: With all those moves, where did you do your early schooling?

Penn: I went to elementary school in town. I also went to elementary school for a couple of years in Connecticut because my folks moved up there somewhere around 1910 or 1911, possibly a little later than that. We lived there for a couple of years until a brother of mine died and they brought his body back here. We stayed back here for the rest of the time. Then, I went to elementary school at Arlington on the Reisterstown Road, which was then in Baltimore County.

King: I meant to ask you whether you had brothers and sisters? There was at least one brother.

King: Well, you mentioned the other big one in the 1960's, the decision to go nuclear years before that plant would be available and produce low-cost electricity. What was the basis for the decision? For many years, I think it was true that it was considered less economical to generate electricity with nuclear fuel.

Penn: Less economical?

King: It would have cost you more than burning oil.

Penn: Well, I never heard of that. But let me say that the studies that were put together by our engineers indicated that the nuclear plant would produce electricity somewhere between 15 and 20 percent less than the cost of a new fossil fuel plant. Now of course, we all recognized that we were getting into a relatively new field of operation and that there were a lot of regulatory problems in being able to develop a plant, and get the right kind of approvals and all that. But we didn't really realize at that time that there would be as many heinous problems relating to public reactions.

King: The Calvert Cliffs plant was announced, I believe, in '67.

Penn: Yes, But of course the studies were probably over the two-year period or so

Maryland Historical Society Library,
201 W. Monument St. Baltimore, MD 21[illegible]

REF

Reproduction Permission Granted
for Educational Purposes Only

Penn: prior to that. The decision was made in '67 and the decision was made on the basis of projections that the overall cost of nuclear power would be less than the overall cost of fossil fuel power. We never would have done it, if it hadn't been. Now, we recognized of course, that there were problems related to nuclear power and that we were into what was then a new field. Therein lies the problem of making the decision. There was also the fact that we were entering into an operation or project the cost of which was far in excess of any project that we had ever entered into. You have to keep in mind at that time we didn't have a generating plant which was costing us more than 125 dollars a kilowatt, and this thing was going to cost us far more. We were going into a project which was estimated, as I recall,at that time to be three-quarters of a billion dollars, including the transmission lines.

King: Didn't it come out close to $750 million?

Penn: Yes. But I think it was somewhat more than that. We had to change the plan for the transmission lines. We were required to spend several million dollars more for transmission lines because somebody wanted to preserve the view of an old house or two down in Southern Maryland.

King: We had a lot of that kind of thing, didn't we? Had to put some zigs and zags in there.

Penn: But I think nuclear power has always been less, always more economical. In more recent years, when the price of coal and oil began to run up, then I think nuclear power became tremendously more economical.

King: Let me just say again to make sure it's on the record, that when we went with the Calvert Cliffs decision, the 15 to 20 percent lower cost of that electricity carried everything. That carried the cost of the plant, the cost of the fuel, all the operations, and still it had that decided an advantage. And we had had ahead of us, I guess, in this area really only Peach Bottom, which would have been a much smaller sort of nuclear project. I think we were in something called Atomic Energy Research Associates that was studying nuclear generation and nuclear fuel.

Penn: We did make some contribution to that. There were several other successful nuclear plants around the country. Peach Bottom was first really a kind of pilot plant. Later on they developed a couple of additional and larger units up there.

King: The first unit was relatively small so that as an order of magnitude it was nothing like the first 800 megawatt unit at Calvert Cliffs. Did the financing of Calvert Cliffs and our earlier additions to capacity pose any special problems to you? I should note for the record that in 1967 you were among twelve winners of a citation by the editor's of Who's Who in Commerce and Industry for the "ambitious construction program" you initiated in the Company.

Penn: Well, we did add a considerable amount to electric generating capacity but we didn't plan to spend money in advance of the time when we needed it. We didn't always make the projection at the right rate and sometimes, I guess, we got the capacity in a little early, but primarily I would guess that over the period of the 50's and the '60's, we were getting the capacity in a little on the late side. We were always kind of squinching down and trying to find ways to defer these capital expenditures.